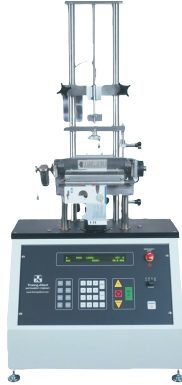


product specification

Score Bend/Opening Force Tester (PCA)



Description

As the packaging industry depends more and more on high-speed automation, it is essential to understand how carton materials will behave in production.

The Score Bend/Opening Force Tester provides vital information for:

- accurately configuring machinery that controls cartons on form, fill and seal lines
- analysing carton performance characteristics for development and quality control
- evaluating the efficiency of cartons during production runs

Determining the conditions required to guarantee the production of cartons within tolerance can increase both production and efficiency and result in less reworking, rejects and down-time.

The Score Bend/Opening Force Tester determines the force required to fold carton stock along a score and the force necessary to open a carton, a particularly important consideration for the evaluation of spring back after bending, which can affect sealing or gluing operations.

The instrument is easy to use, with bending and opening force, measured in grams, appearing on a clear LED panel. The high-quality construction and sophisticated electronics require minimal maintenance and the precision of the instrument makes it ideal for exacting research and development, and durable for the factory floor.

System consists of

- pulling unit
- opening force fixture

Features

- Measures bending and opening force, stiffness of unscored paperboard, residual spring back force, score ratio of scored or unscored paperboard
- Measurement capacity up to 10 kg
- Statistics include average, high, low and standard deviation
- Constant loading rate
- Auto-zero and semi-automatic calibration
- Test result and curve data for PC interface
- Automatic stop and return with overload protection
- Saves up to 99 test results
- Sample ID capability

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Physical specifications

Software control

The front panel provides easy access for configuring test parameters including test mode, force and distance units, sample ID and crosshead return. Statistics for peak force, angle, force and distance traps values are automatically calculated and displayed. Test results and curve data can be output via an RS-232 interface for data collection to a PC or parallel printer.

Dimensions 56 x 41 x 122 cm (W x D x H)

Net weight 68 kg

Operating/storage environment

Air temperature 15–25°C

Relative humidity 20–60% (non-condensing)

Options

- Pneumatic clamping assembly
- Bending fixture for measuring the maximum force required to bend a carton sample up to 90°
- COF fixture for measuring static and kinetic coefficient of friction
- Printer
- Data-acquisition software for capture of serial data and for transfer to any Windows® application
- Load cell

Performance data

Load cell

500, 2000, 5000 and 10,000 g

Force reading accuracy

± 0.25% of full-scale reading

Crosshead speed

5–500 mm/min

Air pressure requirements

75 psi/5.2 bar

Angle measurement range/reading resolution

between 0° and 90° (selectable in 0.1°)/0.36° or better

Position measurement accuracy

± 0.1% of full-scale distance

Force units/Distance units

g, oz, lb, N, kg/in, cm, mm

Sample size opening force/bending force

from 25.4 to 457.2 mm when flat
up to 152.4 mm sample width
up to 6.35 mm sample thickness

Power requirements

110–120/220–240 V, 50/60 Hz, 33 W (operating)

Fuse rating

6 A @ 110 V, 60 Hz; 3 A @ 220 V, 50 Hz

Safety features

electronic overload protection system
angle over-travel limit switch
load cell incorporates mechanical limit stops
upward and downward motion limit switches
emergency stop button

Standards

TAPPI RC-284, PI 110.10

