



PAPER TESTING ASSOCIATION

Bending Stiffness Tester

Cod. ST-10

For the determination of bending resistance and bending stiffness of paper and paperboard.

Standards: TAPPI T 556, ISO 2493, SCAN P29, DIN 53121, BS 3748, NFQ 03-048







SPECIFICATIONS:

- Universal equipment for paper applications.
- Measurement of paper and paperboard.
- Fatigue. Strength of split, Split recovery.
- Taber Measurement Units.
- · Manual tightening.
- Screening test length from 1-50 mm.
- Pre-settable bending angle (0.1 to 90 degrees).
- 2 times of test and 3 points of measurement (angles).
- Angle adjustable speed from 0.1 to 10 ° / second.
- Load cell 10N- Range 10-10000mN- Resolution 0,5%.
- · Large graphic touch screen.
- Clear acrylic security cover.
- · CE mark.
- Electrical connection: 110V-230V, 50-60Hz
- Weight (equipment only / with packaging): 15 kg / 20 kg
- Dimensions (W x L x H equipment only / with packaging): 270 x 500 x 270 mm / 400 x 600 x 400 mm



PAPER Testing Equipment

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USER INTERFACE:

- Machine controlled by means of a touch screen and two auxiliary buttons.
- Through the visualization and control screen, the total control and configuration of the machine can be managed. Easy and intuitive operation of the control menu, configurable in different languages.
- Result table with a maximum of 10 test results.
- Possibility of display the test results in graphic way.
- Statistical control. Mean value, standard deviation, and maximum and minimum values.
- Different configurable units.
- · Periodical program updates (without additional cost).

TEST DESCRIPTION:

Bending resistance in paper and board is a complex property depending upon the network characteristics of the sheets as well as the fundamental fiber properties to which it relates. It varies with the type of paper, the fibers used, the making process and the bulk and grammage of finished sheet.

The two main criteria which govern stiffness are fiber dimensions and bulk. Rigidity has been found to be linearly proportional to the square root of thickness for a given grammage. Since the bulk density of a sheet is closely related to the degree of bonding and fiber strength, a change in any of the fundamental fiber properties will affect bending resistance.

After configuring test conditions, the test can start immediately. By pressing the "Start" button the sample is moved automatically to the load-cell. The test will be started automatically as soon the load-cell is touching the sample (pre-load selectable).

The sample-holder now goes to the pre-selected angle-position and the curve with the determined values are indicated on the large touch screen. With the holding function, a holding time can be selected and then a second measurement can be taken.

The holding times is very useful for testing label-paper, when the bending-resistance on wet samples should be tested. After the test has been done the sample holder returns to its starting position and the sample can be taken out. By means of the statistic function, the statistic values can be read (maximum, minimum, average, standard, deviation, ratio MC/CD...) on the graphic display.