

ANALOG STIFFNESS TESTER

MODEL 150-B



Flexibility and Bending Resiliency Testing

Precision instrument evaluates material stiffness

The Analog Stiffness Tester utilizes a two directional pendulum-type weighing system to evaluate material stiffness, flexural strength, resiliency and elasticity properties. The Analog Stiffness Tester provides accurate test measurements to +/- 1.0% in stiffness and resiliency evaluation in thicknesses from 0.004 in. to 0.219 in. Force is applied to the lower end of the specimen by a pair of rollers attached to the driving disc. The resulting torque tilts the pendulum from its vertical position and a Taber Stiffness Unit reading (g•cm) is taken when the pendulum mark aligns with the appropriate driving disc mark (71/2° or 15°). Predetermined sample length, deflection angle and rate of loading provide accurate and reproducible test results.

The Analog Stiffness Tester is a manually operated instrument. Offering the same accurate, precision test results as the Digital Stiffness Tester, this instrument requires the user to record stiffness testing data, average the readings and multiply results by a scaling factor. Mounted on telescoping tripod legs, the Analog Stiffness Tester is lightweight for easy portability. Electronic components are sealed in a rugged housing.

Applications

Paper, Cardboard, Plastic, Metals, Fabric, Felt, Leather, Rubber, Wire, Tubing and other Sheet Materials.

Models Available

Taber Stiffness testers are available in two models. Both units offer bi-directional pendulum type testing in a range from 0-10,000 Taber Stiffness Units.

Standard Features:

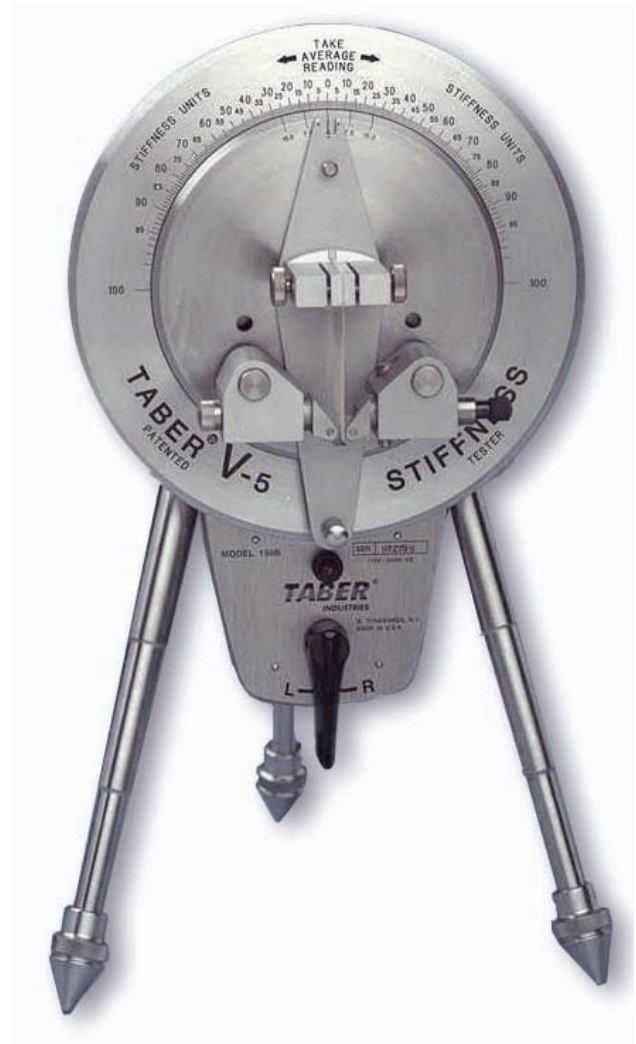
- Factory calibrated to accuracy of ±1% full scale
- Telescoping, tripod base
- Ratchet stop roller
- Constant speed motor
- Dynamic brake holds pendulum at the deflection
- Range weights to test most products

Established tester offers durable construction

Based on the original Taber Stiffness Tester, Model 150-B offers telescoping tripod legs which make this instrument lightweight and portable. Operated manually by an lever control switch, a robust housing protects the electrical components. The new ratchet stop roller significantly reduces specimen mounting variability.

Test a wide range of products

Nine distinct ranges permit testing of materials that are extremely lightweight and flexible (such as cellophane or thin metallic foils) to items that are very rigid (such as plastics). Taber Stiffness Testers will evaluate paper, foil, light metallic sheet, laminated plastic, cardboard, wire, and other flexible materials up to 5.5 mm (0.219 inches) thick that do not exceed 10,000 Taber Stiffness Units.



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Test Methods

Test procedures for the TABER® Stiffness Tester have been established by a number of organizations. The following is a partial listing.

Organization	Standard No.	Method
Appita	P 431 rp-73	Stiffness of Paper and Paperboard
AS	1301.431RP	Methods of Test For Pulp and Paper – Taber Bending Resistance of Paper and Paperboard
ASTM	D 5342	Standard Test Method for Resistance to Bending, of Paper and Paperboard (Taber-Type Tester)
ASTM	D 5650	Standard Test Method for Resistance to Bending of Paper of Low Bending Stiffness (Taber-Type Tester in 0 - 10 Taber Stiffness Unit Configuration)
BSI	BS-3748	Method for Determination of Resistance to Bending of Paper and Paper Board.
CPPS	D28P	Stiffness of Paper and Paperboard (Taber Method)
ISO	2493	Paper and Board – Determination of Resistance to Bending
JIS	P8125	Testing Method for Stiffness of Paperboard by Bending Load
JIS	P8223	Pulps - Laboratory Sheets - Determination of Physical Properties
TAPPI	T489	Stiffness of Paper and Paperboard
TAPPI	T566	Bending Resistance (stiffness) of Paper (Taber Type Tester in 0 – 10 Taber Stiffness Unit Configuration)
AENOR	UNE 57-075	Paper and Cardboard - Determination of Rigidity; Method by Static Flexing

Optional Accessories (sold separately)

- Triple Cut Specimen Shear- Catalog number 79-03-01
- Auxiliary Range Weight Set (3000 and 5000 units) Catalog number 79-03-02
- High Sensitivity Attachment Catalog number 79-03-04
- Calibration Specimens
- Wire / Tube Testing Apparatus
- Step-Down Transformer (required for 220V operation)

Stiffness Tester Includes:

Compensator Range Weight
Range Weight (500, 1000 and 2000 units)
Range Weight Case
Calibration Specimen

Ordering Information

Analog Stiffness Tester model 150B - Catalog number 79-03-00

Digital Stiffness Tester model 150E - Catalog number 79-05-00

Instrument Size

Dimensions D x W x H: 254 x 222 x 419 mm (10 x 8.7 x 16.5 in)

Weight: 5.9 kg (13 lb.)

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