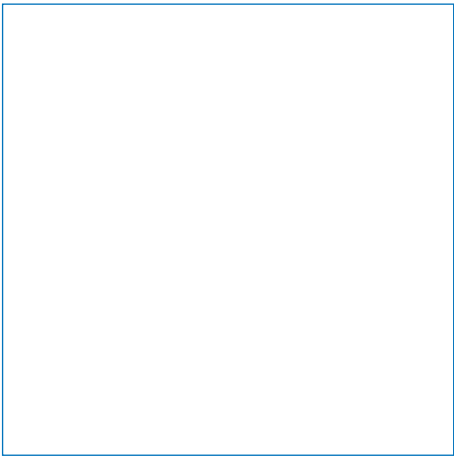
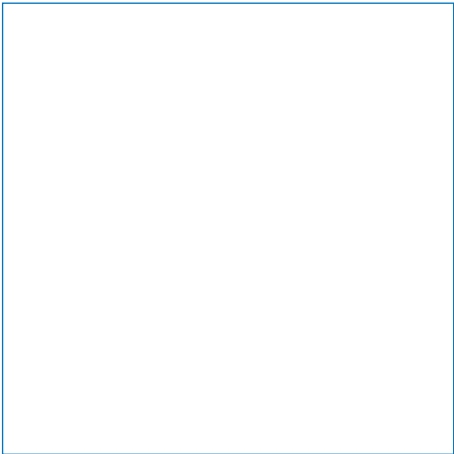




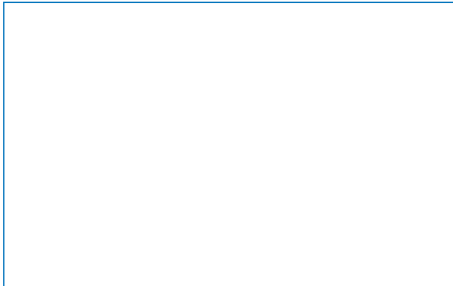
Original TABER[®] STIFFNESS TESTER 362



testing equipment for quality management



Technical Description



Type150-E
Digital version
CE approved

TABER® STIFFNESS TESTER 362

General Information

The **Original TABER® Stiffness Tester 362** remains the standard for stiffness testing and is referenced in the specifications of many standards organizations. Pioneered by Taber in 1937, the Stiffness Tester has been continuously enhanced to meet modern testing requirements and specifications. It is used for tests on flexible materials such as thin plastic plates, paperboard, paper, metal foils, felt, leather etc.

Stiffness and Resilience

One Taber Stiffness Unit is the bending moment of 0.2 g applied to a 3.8 mm wide specimen at a 5 cm length while flexing it to a 15° angle. A *Stiffness Unit is the equivalent of 1 g/cm.*

Resilience is the elastic quality of a material expressed as the ratio of basic stiffness to initial stiffness calculated by the following formula:

Percentage of Resilience = Basic Stiffness x 100 / Initial Stiffness

Initial Stiffness is the first reading obtained immediately when flexing the specimen to the endpoint of deflection and is generally used for comparing relative stiffness qualities.

Basic Stiffness is the loss of stiffness caused by realignment of the molecules experienced by the material when the specimen is held at the end point of deflection.

Design and Function

The **Original TABER® STIFFNESS TESTERS 362** include three major components: a constant speed motor, a weighted free-swinging pendulum with a clamping block to hold the specimen at the face, and a powered, gear-driven rotating disc.

On the **Type 150-E** the test results appear automatically on the display panel and can be downloaded to a C or printer.

The clamping block is precisely aligned with the centre of rotation of the gear-driven disc. The specimen to be tested is held on the top end in the jaws of the clamping block and at the lower end between two adjustable rollers attached to the rotating disc. In this way, 5 centimetres of the specimen are flexed in the standard 10 to 100 unit test range.

When power is applied to the gear-driven disc, a resulting torque is placed on the specimen causing angular deflection in the pendulum. This deflection is indicated directly on the digital display.

TABER® STIFFNESS TESTER 362 (Type 150-E)



Fig. 1- TABER® STIFFNESS TESTER, Typ 150-E

STIFFNESS TESTER, Type 150-E

This version of the TABER® STIFFNESS TESTER is CE approved and is 115 or 230 VAC, 50/60 Hz operational.

The Type 150-E features a 16 key keypad, a 4 x 20 character vacuum fluorescent display, parallel printer port, RS-232 port and a real-time clock and calendar. Stiffness readings are automatically converted to the appropriate user-selected stiffness range.

Up to 1,000 readings can be stored in the non-volatile memory. Average, standard deviation and high/low readings are automatically calculated.

The stored values are classified by the time and date or by a designation entered by the operator. Stored readings may be printed or downloaded to a PC.

Operators have the ability to customize the direction, deflection and number of cycles.

Accessories

Calibrated weight units 104-10

These weights are used to extend the test range from 0.1 to 10,000 Taber Stiffness Units.



Fig. 2 – Calibrated weight units

Triple cut specimen shear 104-11

This cutter is ideal for preparing precise samples for testing. Test samples are cut uniform to size:
1 ½" x 2 ¾" (38 mm x 69 mm) or
1 ½" x 1 ½" (38 mm x 38 mm).
Thickness: up to 0.5 mm.

Only if samples with precise dimensions are used, comparable test results will be obtained.

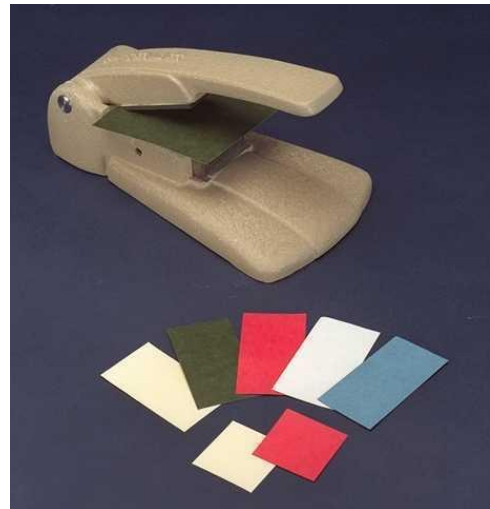


Fig. 3 – Triple Cut Specimen Shear

Wire and tube testing kit

Designed for testing cylindrical specimens up to 4 mm dia. which are fixed without any deformation.

For this purpose each kit includes an upper and a lower holder which are adjusted to the diameter of each specimen.

High Sensitivity Attachment 150-14

Allows testing of limp plastics, textiles, foils, paper, etc. Test range is 0.1 – 1.0 Stiffness Units. When using this range, compensator weight 150-67 must be attached to the stud at the top of the pendulum.

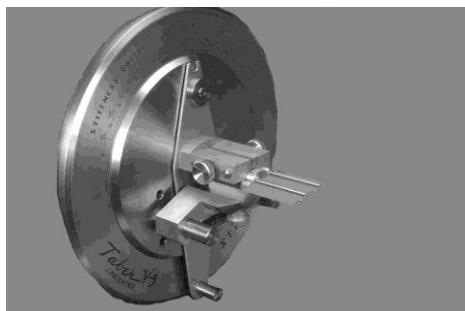


Fig. 4 High Sensitivity Attachment 150-14

Ratchet Stop Roller Assembly with pressure limitation

The assembly now included in the scope of supply of each TABER® STIFFNESS TESTER, is also suitable for the retrofit of all TABER® Stiffness Testers.

This device remarkably reduces the potential of measuring errors caused by the operator and possibly due to differences in fixing the specimen (too tight /too loose). The assembly is mounted in the place of the **right** roller. When fixing the specimen, the clamping movement of the right roller is automatically stopped if it comes in contact with the specimen to be fixed.

Technical Data

Type 150-E

Dimensions:	approx. 38 x 26 x 39 cm
Net weight:	approx. 11.4 kg
Power supply:	115/230 VAC, 50/60 Hz
Calibration:	at factory
Assembly:	completely assembled

Order Information

Ord.-No.	Product Description
0362.03.51	Bendability Measuring Instrument Original TABER® STIFFNESS TESTER 362 (Type 150-E)
<i>Scope of supply:</i>	
<ul style="list-style-type: none"> ◆ 3 Auxiliary range weights (500, 1000, 2000 units) ◆ 1 Compensator weight (range: 0 - 10) ◆ 1 Jaw assembly 6 mm with ratchet stop roller ◆ 1 Connecting cable ◆ 1 Protecting plastic cover ◆ 1 Operating instructions ◆ 	

Accessories

Ord.-No.	Product Description
0362.02.41	Auxiliary range weights 104-10 (1 set) for range 300 - 10.000 units
0362.03.52	Triple cut specimen shear 104-11
0362.04.52	High sensitivity attachment 150-14
0362.06.52	Ratchet stop roller assembly (right side only)
0362.07.52	Wire / Tube testing kit
	Calibration specimens (see Price List)

For further details please see our Price List No. 362.

The right of technical modifications is reserved.
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