TLS

TESTING FIXTURES FOR PAPER - CORRUGATED BOARD AND PACKAGING

Test tools and fixtures for paper, corrugated cardboard and packaging, the test tool being incorporated into a Universal Testing Machine.

TECHLABSYSTEMS

CONTENT

Manual Grips for Tensile Tests model MDM/1 (1kN)

Easy-to-use, manually operated jaws applicable to perform tensile tests on samples of low resistance sheet materials, incorporated in a Universal Testing Machine

INFORMATION

- Provides a simple and effective method to hold specimens
- Dual acting design, also for asymmetrical samples
- Jaws articulate and provide self-aligning and self-tightening effect
- Versatile application for paper, tissue..., etc.

Pneumatic Grips for Tensile Tests model MDN/0,5 (0,5 kN)
Pneumatic Grips for Tensile Tests model MDN/1 (1 kN)

Lightweight pneumatic clamping grips, easy to use and applicable to perform **tensile tests** on samples of light sheet materials incorporated into a Universal Testing Machine.

MDN/0,5

MDN/1

INFORMATION

Lightweight, easy-to-use pneumatic grips designed for tensile testing of low-resistance sheet materials up to **500 N** and **1 kN**.(paper, board, tissue...)

Zero Point Tensile Test Fixture model MT.10 "Zero Span Test"

This fixture is designed to measure the **resistance to longitudinal** mean breaking of the **fibers in the paper** being incorporated in a Universal Testing Machine

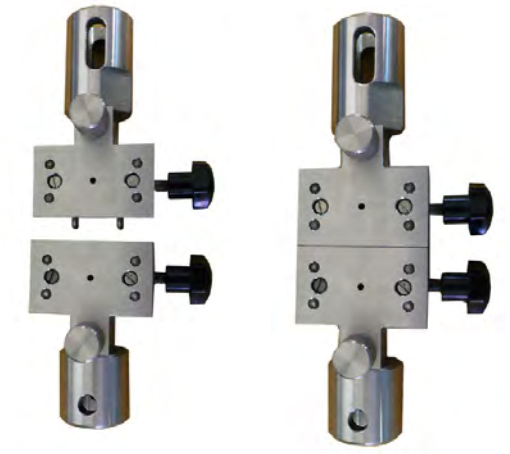
APPLICABLE STANDARDS

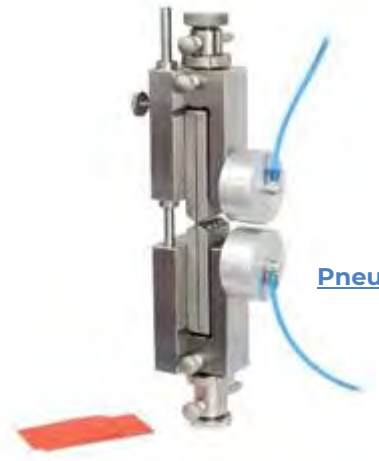
TAPPI T 231cm-07 – ASTM D5804 – ISO 15361

INFORMATION

This fixture coupled to a Universal Testing Machine allows to evaluate:

- Average orientation of cellulosic fibers
- Influence of Refining on the pulp / paper pulp
- Influence of pressing on the degree of bonding of the paper sheet





[Pneumatic version](#)

Wet Te nsile Test Fixture model MT-15 “Finch Test”

This fixture is designed to perform tests of resistance to rupture by **tensile of papers after immersion in water** in a container, incorporated in a Universal Testing Machine

APPLICABLE STANDARDS

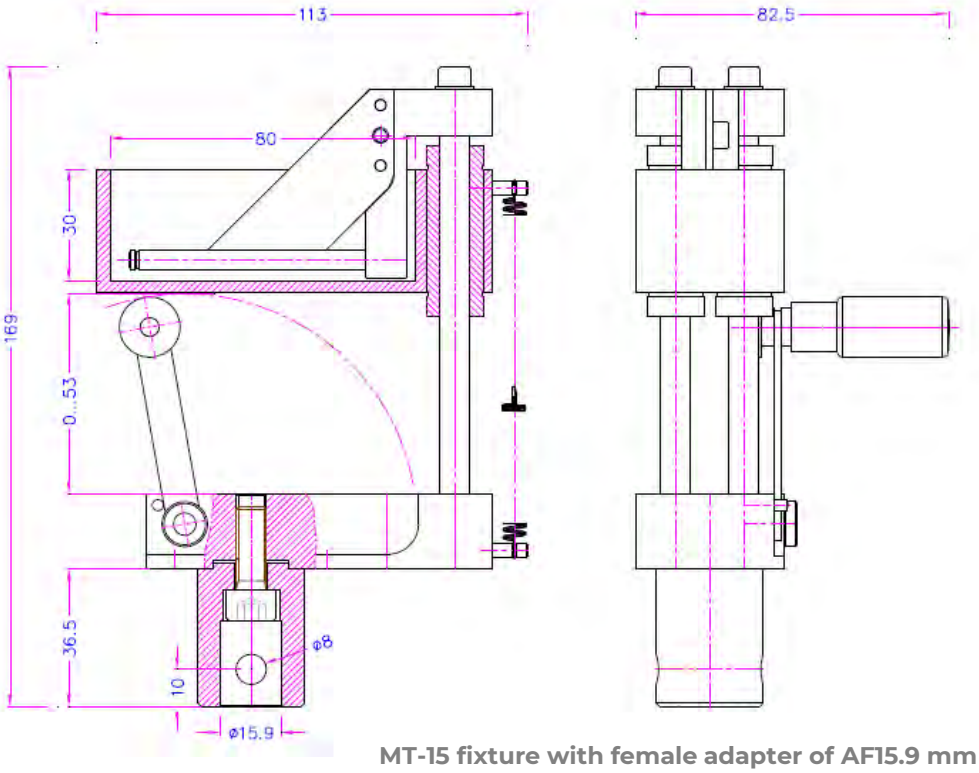
TAPPI T 456 om-03 – ASTM D828 – ASTM D829 – ISO 12625-5 – ISO 3781

INFORMATION

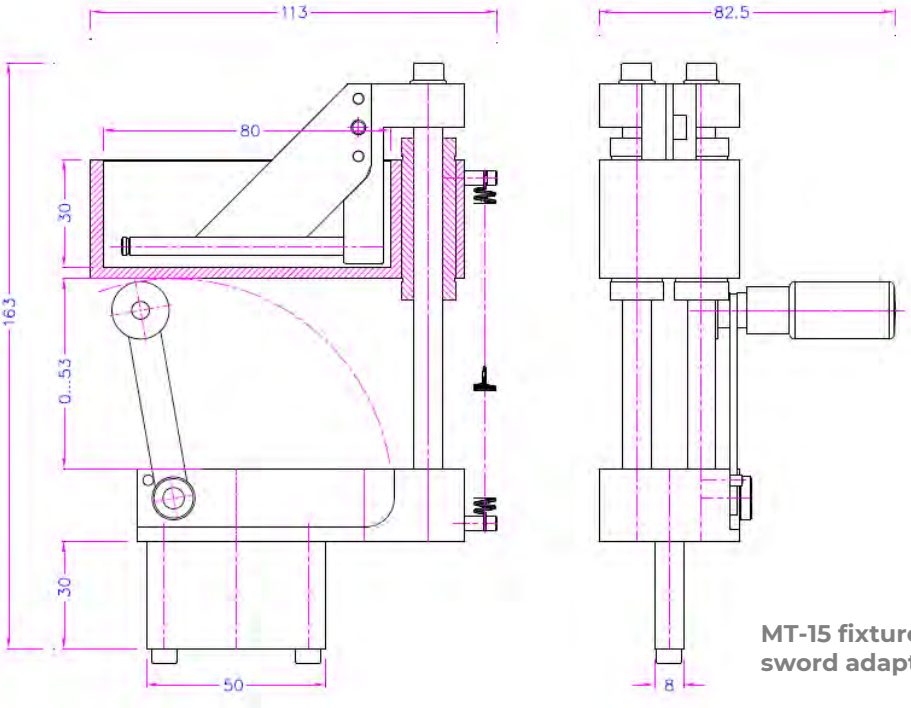
This fixture placed in a Universal Testing Machine allows evaluating the wet tensile strength of the paper test tubes after being immersed in water that contains the small tank incorporated in the testing device itself and that is vertically slidable.

- The paper test samples are placed in a loop
- Standard dry pulling can be used as upper grip

- Maximum load: 500 N
- AF female adapter: Ø 15.9 mm or SWD sword type adapter
- Material: Stainless steel and aluminum (base + container)
- Temperature range: 0... + 70°C
- Weight: 0.4 Kg
- Scope of supply: 1 Wet TensileTest Fixture, and to carry out the test you need an upper clamp to hold the sample to be tested in a loop mode.



MT-15 fixture with female adapter of AF15.9 mm Ø



MT-15 fixture with sword adapter

As upper grip we recommend:

Jaw rubber coated

[Friction Testing Fixture](#) (for Papel and Plastic Film)

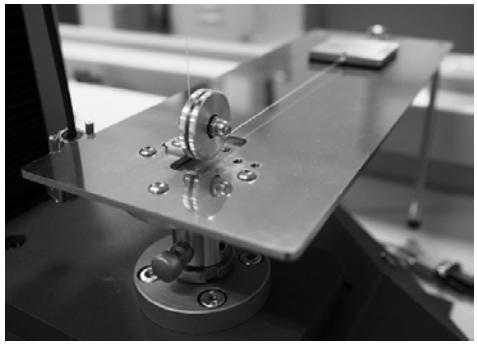
This fixture is designed to perform **Friction tests** (static and kinetic coefficients) of **paper samples, plastic film**..., being incorporated into a Universal Testing Machine.

APPLICABLE STANDARDS

ISO 8295 - ASTM D1894 (método B) - TAPPI T816 - TAPPI T549...

INFORMATION

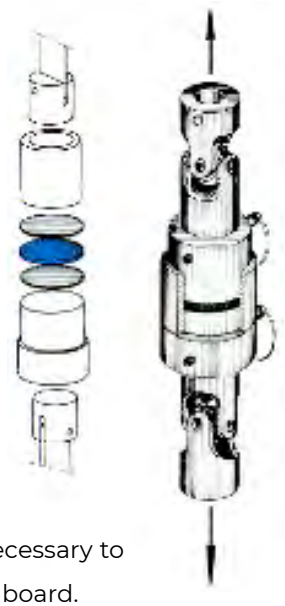
This device, being incorporated in a Universal Testing Machine and through the Testing Software, allows the Static and Dynamic Coefficients of Friction to be accurately determined.



Supplied with a 63.5 x 63.5 cm friction pad and weighing 200 g

* Optionally we can supply other weights, e.g. 1360 g in accordance with TAPPI standards

"Bond" Testing Fixture Layers Separation model DE-22



This fixture is designed to perform "bond" **layer separation tests** on **paper and compact cardboard, cardboard** ..., being incorporated in a Universal Testing Machine

APPLICABLE STANDARDS

TAPPI T 541om-10 - ISO 15754...

INFORMATION

This fixture incorporated in a Universal Testing Machine allows to measure the force necessary to delaminate, that is, to separate the internal layers in circular samples of paper and cardboard.

- ✓ 10 cm2 test specimens
- ✓ Two-sided adhesive is used for gluing the specimens
- ✓ The General Assembly is prepared in an auxiliary press

Burst Test Fixture to the Ball of Tissue Paper model DE-25

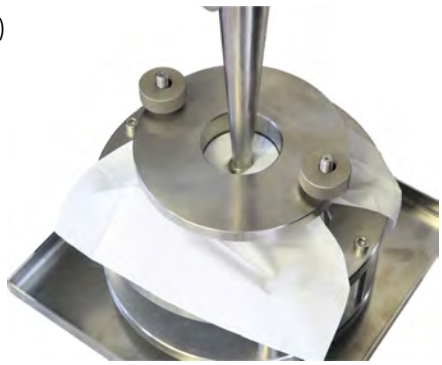
This fixtureis designed to measure **dynamic penetration** (BURST) using the ball method on **tissue paper** and derived products. being incorporated in a Universal Testing Machine

APPLICABLE STANDARDS

ISO 12625-9 – ISO 12625-11 – TAPPI T570

INFORMATION

- The test fixture is designed for simple tests. The tissue sample is held horizontally and pneumatically between two plates, which have a circular opening in the center
- A 16 +/- 0.05 mm diameter polished ball penetrates the center of the sample at a constant speed of 125 +/- 5 mm / min
- The test is performed on both dry tissue samples (EN ISO 12625-9) as in wet samples (EN ISO 12625-11)
- The result can be expressed in Newton, grams or pounds needed puncture the tissue paper sample with the ball.



** Pneumatic requirements (Compressed air): 6-8 Bars (600-800 kPa)*

Egg Container Tensile Strength Testing Device

This test fixture is designed to perform **tensile strength tests** on **egg containers,** being incorporated into a Universal Testing Machine.

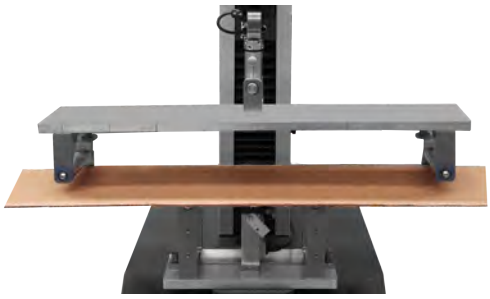
Egg Container Flexural Strength Testing Device

This testing fixture is designed to perform **flexural strength tests** on **egg containers**, being incorporated into a Universal Testing Machine.

Adapted to a MiniVal Tester

4 Point Bending Stiffness Testing Fixture

This fixture is designed to quickly and accurately determine the **bending stiffness at 4 points** of standardized **corrugated cardboard** samples in accordance with ISO 5628, the test tool being incorporated into a Universal Testing Machine.



APPLICABLE STANDARDS

ISO 5628

INFORMATION

This fixture placed in a Universal Testing Machine makes it possible to evaluate the Bending Stiffness is the relationship between the Bending moment applied to a standardized sample in accordance with ISO 5628 and the Deflection within the elastic zone.

The Flexural Stiffness of Corrugated Cardboard is of great importance to achieve a great resistance to Stacking, BCT, in the corrugated cardboard box.

What mainly determines this bending stiffness of corrugated cardboard is the mixture of the thickness of the corrugated cardboard and the tensile strength of the Liners papers.

Folded Cardboard Boxes and Cases Opening Test Fixture

This fixture is designed to quickly and accurately determine the **Opening Force** required to unfold and open cardboard boxes and cases. being incorporated in a Universal Testing Machine

INFORMATION

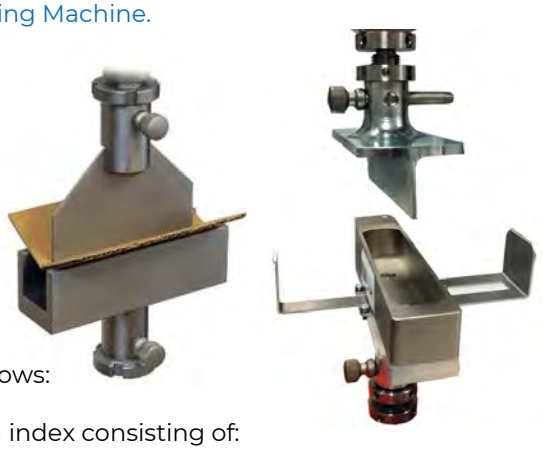
As the container and packaging industry uses high-speed automated production processes, it is very necessary to know how the materials used (corrugated cardboard - compact, cardboard, cardboard ...) will behave during the manufacturing process.

The Box Opening Testing Fixture, integrated in a Universal Testing Machine, allows:

- Know the maximum force required to open a folded package and thus be able to quickly adjust the controls on production machines.
- Determine the quality and performance of the cartons used in the process
- Perform Quality Control and Development and Innovation

Score Bending Quality Test Fixture "SQT"

This fixture is designed to quickly and accurately test and determine the **Bending Force through score lines** in folded cardboard boxes and cases in accordance with the **TAPPI T829** Standard, this test tool must be incorporated into a Universal Testing Machine.



APPLICABLE STANDARDS

TAPPI T 829

INFORMATION

As the container and packaging industry uses high-speed automated production processes, it is very necessary to know how the materials used will behave during the process (corrugated cardboard - compact, cardboard, cardboard ...).

This testing fixture and coupled to a Universal Testing Machine, allows:

- Determine (according to TAPPI T 829) the SCORE (Crease) index consisting of:

  SCORE Index = F (split break) / F (non-split break) X 100
- Determine the quality and performance of the cartons used in the process
- Perform Quality Control and Development and Innovation

Score Bending Quality Test fIXTURE

This fixture is designed to quickly and accurately test and determine the **Bending Force through score lines** in folded cardboard boxes and cases in accordance with the **TAPPI T577** Standard, this test tool must be incorporated into a Universal Testing Machine.

APPLICABLE STANDARDS

TAPPI T 577

INFORMATION

This testing fixture integrated in a Universal Testing Machine is used to determine the flexural strength of samples with or without splitting from a cardboard box. The flexural strength of the fold zone marked with a crease line in cardboard or compact cardboard is an important parameter to determine the force required to close a cardboard flap of a box or case during a product filling operation in a packaging machine

As the container and packaging industry uses high-speed automated production processes, it is very necessary to know how the materials used will behave during the manufacturing process (corrugated cardboard - compact, cardboard, cardboard ...).

The testing tool, being integrated into the universal testing machine, allows:

- Determine (according to TAPPI T 577) the SCORE (Crease) index that consists of:
  - SCORE Index = F (split break) / F (non-split break) X 100
- Determine the quality and performance of the cartons used in the process
- Perform Quality Control and Development and Innovation
- Visualization of the FEXION / BEND Forces of the creasing lines of a cardboard sample during a 12.7 mm travel or the necessary to reach a 90° bending angle of the sample, with retention of maximum values

Recommended Testing Machine: