TLS

GLUED JOINTS TESTING MACHINE

Model JT-55

With a single column test frame designed to quickly and accurately determine the strength of the corner joints of corrugated cardboard boxes in accordance with FEFCO 55 Standard.

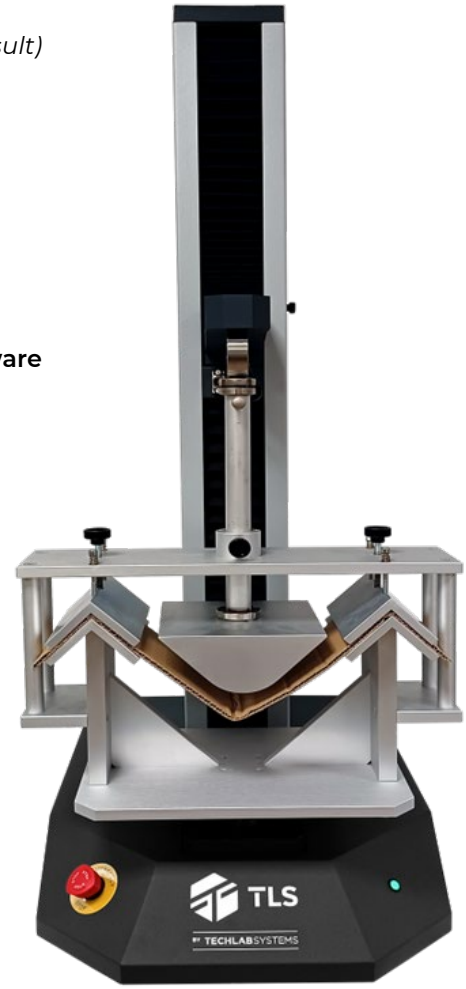
TECHLABSYSTEMS

FEFCO testing standards are used for different tests of corrugated cardboard and boxes.

The specific FEFCO 55 Standard refers to the test to determine the resistance in the corner joints of corrugated cardboard boxes.

GLUED JOINTS TESTING MACHINE JT-55

- **Maximum force capacity: 1 kN** *(Other higher forces consult)*
- **Recommended load cell: 1kN**
- **Accuracy ± 0,5% (Clase 0,5)**
- **Units:**
  (N/m, N/mm, Kg/m, Kg/mm, lb/in & lb/ft)
- **Precise electromechanical drive**
- **High rigidity test frame**
- **The testing machine is supplied with the Testing Software and Mini PC**
- **Large working space**
- **Ergonomic and precise**



General information

The **Glued Joints Testing Machine JT-55** for measuring the strength of corrugated cardboard box joints in accordance with FEFCO 55 standard has the most advanced and reliable electromechanical testing frame structure with a ball screw. The computerized control system allows for closed-loop control of parameters such as test force, deformation of the specimen and crossbar travel, etc. The system creates test diagrams, test curves and creation of test reports in real time on the PC screen. Closed-loop control through the LYNX testing program makes it possible to carry out tests quickly and accurately to meet your needs in quality control and research of Corrugated Paper and Cardboard used in modern packaging

In the section on compliance with International Standards, it meets or exceeds the requirements of the following standards: ISO 7500-1, ASTM-E4, EN10002-2, BS 1610, DIN51221, ISO6892.

The **Glued Joints Testing Machine JT-55** for Measuring the Strength of Box Joints in accordance with FEFCO 55 is made up of a robust frame in which the testing frame is located. The testing frame is composed of a drive and recirculating ball screw with protectors, with a low coefficient of friction and a guide column made of chrome-plated and rectified steel.
The force measurement is carried out through a traction-compression load cell housed in the mobile crossbar. The fastening device of the cardboard sample is directly coupled to said load cell with the joint to determine its resistance.

The test frame supports overloads of 120% of the nominal force without affecting its measurement or operating precision, which gives the frame great robustness and security of correct operation in the face of intensive work.

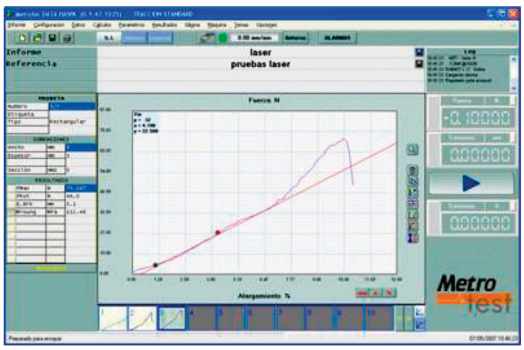
It has a system of upper and lower travel limiters that are independently adjustable by the user. Inside the base box are included the transmission elements, the transformer, regulation electronics, servomotor, etc.

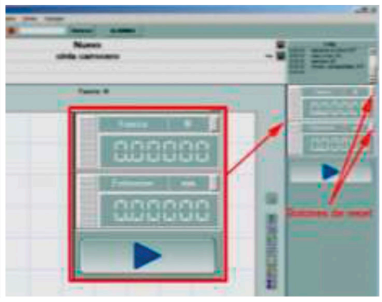
Specifications

- **Completely computerized: The control and measurement system with specific electronic card used for testing machines, tare to zero and add an adjustment which is very reliable.**
- **It has a Database manager for test results which is stored in accordance with a standard format which facilitates analysis and transfer to other programs.**
- **Compliance with testing requirements for all types of materials with all international testing standards**
- **With a wide range of functions in the graphics, you can make color changes of the curves, magnifications (zoom), reductions, auto scaling of the curves (which makes it easier and shortens the time to perform a test with a new material) , displacement of the curves on the deformation axis, designating a standard curve, association of labels to each graph, indication of the values digitally on the screen and printing all types of test curves.**
- **The modular design makes it easy to modernize the software in the future.**

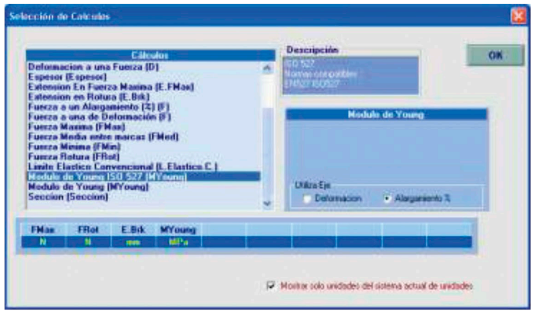
LYNX Material testing Software

LYNX testing program based on WINDOWS MS is easy and fast to use to achieve different functions, adaptable to most operator habits. With all the integrated functions such as test sample information, sample choice, data display, data processing, data analysis, test operations ... easy to use.





- **Very clear, intuitive, attractive interface design with information on the screen.**
- **Choice of different units for each of the results.**
- **Route of all the points of the graph, point by point.**
- **Association of labels to each graph.**
- **Creation and management of standard curves.**
- **Context sensitive help**
- **Customizable report**
- **Reports in PDF format directly without the need for additional software**
- **Automatic auto scaling on charts**
- **Test limits independent of graph limits**
- **Auto-save of results, specimen by specimen**
- **Single or multiple curve display**
- **Customizable interface**
- **Option to request sample dimensions at the beginning of each trial.**
- **On-screen information of the tasks being carried out by the program (log)**
- **Visual parameterization of results**



Functional Technical Specifications

Control unit

- PC Control and METROTEST Testing Software
- Level of breakage of the sample (% of force drop at the end of the test)
- Maintenance of Peak Force / Extension in Tension or Compression
- Selection of force and deformation units
- External control mode by Mini PC
- RS-232 serial port

Force measurement

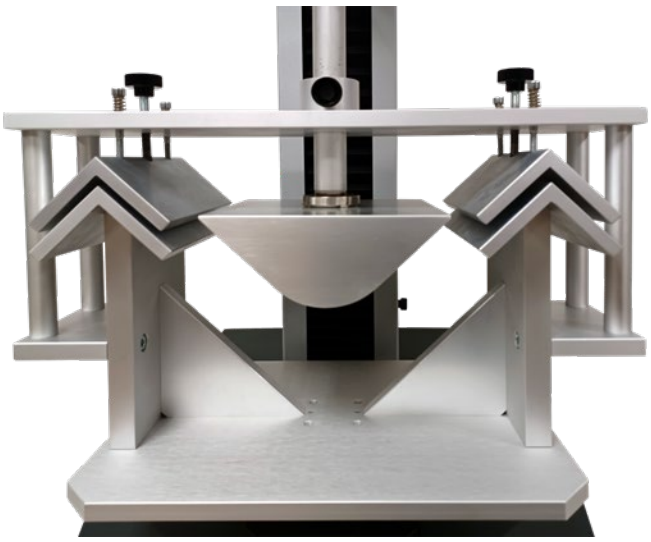
- Range: 2% to 100% - Accuracy 0.5% of applied force
- Precision in Forces: Class 0.5 (accuracy ± 0.5%)
- Load reading resolution: 1 / 200,000 points:
    - 1 / 100,000 in Tension
    - 1 / 100,000 in Compression
- Force Data Sampling Rate (internal): 30,000 S / second
- Digital load tare 20% with the Load Cell at its maximum capacity
- Selectable units: kN, N, cN, kgf, gf, lbf.
- Protection system of the Load Cell
- Programmable preload
- 18 bit high speed A / D converter

Measurement of travel (mobile crosshead)

- Direct measurement from the drive spindles
- Single measurement range (1 scale)
- Reading resolution: 0.001 mm
- Auto-return precision, better than 0.05mm
- Selectable units: Millimeters and Inches
- Programmable extension limits

Speed control

- Servo motor drive
- Variable speed range (see table)
- Variable return speed within range (see table)
- Default speed resolution: <0.02mm / minute
- Speed accuracy: ≤ ± 0.5%
- Variable Preload speed within the range (see table)
- Current protection system



MODEL	JT-55
Force capacity of the Testing Machine *	1 kN
Capacity of load cell standard supply	1 kN
Force resolution on a 1 kN Load Cell	0,01 N
Measured force accuracy	≤ ± 0,5 %
Displacement resolution	0,001 mm
Travel accuracy	≤ ± 1 %
Mobile crosshead travel	500 mm
Separation between column and grips adapter	150 mm
Range Standard Test Speeds	0,5 – 1000 mm /min.
Accuracy of test speed	≤ ± 1 %
Maximum return speed	1000 mm/min
Spacing between fixings (adapters)	500 mm
Electric supply	220V / 50Hz - 110V/60Hz single-phase.
Approximate power	400 W
Working Ambient Temperature and Relative Humidity Condition	10 °C ~ 35 °C | 20% -80%
Dimensions Test Frame approx.	420x670x950 mm (W x D x H)
Net Weight approx.	76 Kg
Dimensions Wooden packaging approx.	600x870x1250 mm (W x D x H)
Gross Weight approx.	130 Kg

* For force capacities greater than 1 kN, consult our Sales Department

STANDARD SUPPLY CONTENT:

- Glued Joints Testing Machine JT-55 + 1000 N Load Cell
- LYNX Multilingual Testing Software
- Management Module with Basic Statistics Packs:
  Bar Charts - Gaussian Bells and Reference Comparison
- Mini PC – Windows O.S.