



LabZenix

**LabZenix Industries Pvt. Ltd.**

## Paper & Packaging Testing Instruments



## **BOX COMPRESSION STRENGTH TESTER- DIGITAL**

**LabZenix Box Compression Strength Tester** is a vital instrument for evaluating the durability and compression resistance of packaging boxes, such as corrugated cartons and cardboard containers. This equipment is widely used in industries like packaging, logistics, and manufacturing to ensure the safety and reliability of products during storage and transit.

The tester measures the maximum load a box can withstand before collapsing. This is critical for determining the structural integrity of boxes, especially in environments where stacking and weight distribution are common. The machine typically features a robust frame, a precise load cell, and a digital display for accurate measurement of compression strength.

Modern box compression testers are equipped with advanced analyze test results, making them ideal for quality control and R&D purposes. These machines also comply with international testing standards such as ASTM and ISO, ensuring reliable and repeatable results.

Key applications include testing boxes used for food, electronics, and heavy-duty industrial goods. By using a box compression strength tester, manufacturers can optimize material usage, reduce costs, and enhance the overall performance of their packaging.

In summary, a box compression strength tester is essential for maintaining high-quality packaging solutions, improving safety during transportation, and meeting global industry standards. It is an indispensable tool for businesses aiming to deliver durable and reliable packaging solutions.

### **TECHNICAL DATA**

- Model: LZBCTD
- Type: Compression Strength
- Capacity: 500Kgf & 1000Kgf & 2000Kgf & 5000Kgf
- Display: LED (Digital)
- Accuracy:  $\pm 2\%$  full scale (with master load)|
- Least Count: 50gm & 100gm & 200gm
- Power: 220V, Single phase, 50 Hz
- Test Platform Size : 600mm x 600mm & 1000mm x 1000mm
- Test Speed:  $12.5 \pm 2.5$  mm/min
- Speed Drive: 10mm/min to 50mm/min. (Optional)
- Standard: ASTM D642, ASTM D4169
- Options: Computerized Model Available (Model: LZBCTC)

### **FEATURES:**

- Microprocessor based display for accurate test results
- Highly accurate test results under uniform compression Force
- TARE and Peak Hold Facility Available
- Over travel protection
- Strong base plate with rugged structure
- LED display
- Available in various platform sizes and Load Cell Capacity.



## **BOX COMPRESSION STRENGTH TESTER- COMPUTERIZED**

**LabZenix Computerized Box Compression Strength Tester** is an advanced testing device used to evaluate the compression strength of packaging boxes, including corrugated and cardboard cartons. This sophisticated equipment ensures precise measurement and detailed analysis of a box's ability to withstand stacking pressure and heavy loads.

Unlike manual or analog testers, the computerized model is equipped with a user-friendly interface and advanced software that automates the testing process. It allows users to set parameters, monitor real-time results, and generate detailed reports. The machine features high-precision load cells, motorized platens, and a robust framework, ensuring accurate and consistent test results.

The computerized tester plays a crucial role in industries like packaging, logistics, food, and e-commerce, where safe transportation and storage are essential. It helps manufacturers assess the durability of packaging materials and optimize designs to minimize material usage while maintaining strength.

Key features of the computerized box compression strength tester include digital data acquisition, compatibility with international testing standards (such as ASTM, ISO, and TAPPI), and customizable testing configurations. The software integration allows for data storage, easy report generation, and performance tracking over time, making it a reliable tool for quality assurance and research and development.

In summary, the computerized box compression strength tester is a valuable asset for modern industries, combining precision, efficiency, and advanced analytics to ensure high-quality packaging solutions and safe product delivery.

### **TECHNICAL DATA**

- Model: LZBCTC
- Type: Compression Strength
- Capacity: 500Kgf & 1000Kgf & 2000Kgf
- Display: LED (Digital)
- Accuracy:  $\pm 2\%$  full scale (with master load).
- Least Count: 50gm & 100gm & 200gm
- Power: 220V, Single phase, 50 Hz
- Test Platform Size : 600mm x 600mm & 1000mm x 1000mm
- Test Speed:  $12.5 \pm 2.5$  mm/min
- Speed Drive: 10mm/min to 100mm/min. (Optional)
- RS232 communication port to interface with PC.
- Standard: ASTM D642, ASTM D4169

### **FEATURES:**

- Microprocessor based display for accurate test results
- Highly accurate test results under uniform compression Force
- TARE and Peak Hold Facility Available
- Over travel protection
- Strong base plate with rugged structure
- Bright LED display
- Available in various platform sizes and Load Cell Capacity.
- Computer/ Laptop: Client Scope



## **BURSTING STRENGTH TESTER- DIGITAL**

**LabZenix Bursting Strength Tester - Digital** is a specialized device designed to measure the strength and durability of materials like paper, cardboard, fabric, and packaging materials under hydraulic pressure. It determines the maximum pressure a material can withstand before rupturing, making it essential for quality control in industries like packaging, textiles, and manufacturing.

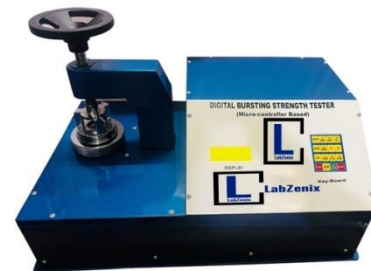
The machine features a robust frame, a circular clamping system for securing samples, and a precise hydraulic system to apply uniform pressure. Many models include digital displays for accurate readings, enhancing the reliability of the results.

Bursting strength testers are widely used to evaluate the performance of corrugated boxes, ensuring they can withstand the stress of stacking and handling. They also aid manufacturers in optimizing material usage while maintaining quality.

By ensuring material durability, a bursting strength tester helps businesses meet industry standards, improve product safety, and enhance customer satisfaction through reliable packaging solutions.

### **TECHNICAL DATA**

- Model: LZBSTD
- Pressure Range: 40 Kg/ cm<sup>2</sup>
- Least Count : 0.1 Kg/cm<sup>2</sup>
- Display: Digital
- Opening in upper clamp: 35.5 mm diameter
- Openings in lower clamp: 38.1 mm diameter
- Rate of fluid displacement: 95 cc/minute
- Test fluid: Glycerin
- Motor: ¼ HP Single Phase
- Peak Hold Facility: Yes
- Accuracy: ± 1% within 10% to 90% of entire range as per IS: 1828
- Standards: ASTM D3786, ASTM D774



### **FEATURES:**

- Digital LCD display with backlit.
- Tare facility available.
- Peak Hold facility for keeping the maximum value in the memory.
- Report includes Load vs. Time Graph, Peak Value of C.S, Date, Time, Operator ID etc.
- Microprocessor based display for accurate test results
- Highly accurate test results under multidirectional Force
- Strong Gripping clamps
- Grooved structure of Test Specimen Holder to avoid slippage and intact holding of specimen under test
- No slippage in case specimen is tightened uniformly using operating wheel.

## **BURSTING STRENGTH TESTER- COMPUTERIZED**

**LabZenix Bursting Strength Tester – Computerized** is an advanced testing instrument designed to evaluate the bursting strength of materials like paper, and corrugated boards. This device is essential for industries such as packaging, paper manufacturing, and quality control to ensure product durability and reliability.

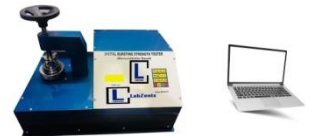
Featuring a computerized interface, the tester provides precise and efficient measurements by applying uniform hydraulic pressure until the material bursts. The system generates real-time data, including graphs and reports, enabling detailed analysis and compliance with international standards like ASTM and ISO.

This user-friendly device allows programmable test settings and data storage for efficient quality checks. Its robust construction, high-quality sensors, and intuitive digital display make it suitable for rigorous industrial use.

By integrating the **Bursting Strength Tester – Computerized** into quality control processes, manufacturers can ensure superior material performance, minimize failures, and enhance customer satisfaction. It is a vital tool for modern quality assurance.

### **TECHNICAL DATA:**

- Model: LZBST-C
- Capacity: 0-40Kg/cm<sup>2</sup>
- Least Count : 0.1Kg/cm<sup>2</sup>
- Display: Digital & Computerized both
- Clamping arrangement: Wheel Type (Manual)
- Opening in upper clamp: 35.5 mm diameter
- Openings in lower clamp: 38.1 mm diameter
- Rate of fluid displacement: 95cc/minute
- Test fluid: Glycerin
- Motor: ¼ HP Single Phase
- Peak Hold Facility: Yes
- Safety Switch: Yes
- RS232 Port to interface with Computer / Laptop
- Accuracy: ± 1% within 10% to 90% of entire range as per IS:1828
- Standards: ASTM D3786, ASTMD774



### **FEATURES:**

- Digital & Graphical indication of readings.
- This equipment is completely microprocessor based.
- TARE facility incorporated.
- Peak Hold facility for keeping the maximum value in the memory.
- LCD display with backlit.
- Microprocessor based display for accurate test results
- Highly accurate test results under multidirectional Force
- Strong Gripping clamps
- RS232 communication port with software to connect with PC
- Report includes Load vs. Time Graph, Peak Value of B.S, Date, Time, Operator ID etc.
- Grooved structure of Test Specimen Holder to avoid slippage and intact holding of specimen under test
- No slippage in case specimen is tightened uniformly using operating wheel.
- Computer/ Laptop: Client Scope

## **BURSTING STRENGTH TESTER- PNEUMATIC & COMPUTERIZED**

**LabZenix Bursting Strength Tester – Pneumatic & Computerized** is a state-of-the-art instrument designed for accurately testing the bursting strength of materials like paper, corrugated boards. This advanced equipment is widely used in industries such as packaging, paper manufacturing ensure material durability and reliability.

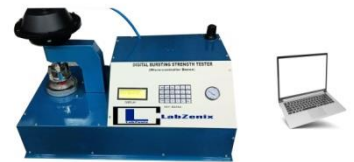
This model combines pneumatic operation with computerized precision, delivering accurate results with ease. The pneumatic mechanism ensures uniform pressure application, while the computerized interface provides real-time data analysis, test reports, and graph generation. It complies with international testing standards like ASTM and ISO, making it ideal for global quality benchmarks.

The tester features a user-friendly interface, programmable settings, and robust construction to handle diverse industrial requirements. Its ability to store and analyze data enhances the efficiency of quality control processes.

With the **Bursting Strength Tester – Pneumatic & Computerized**, manufacturers can achieve precise material evaluation, reduce failures, and improve overall product quality.

### **TECHNICAL DATA:**

- Model: LZPBST-C
- Capacity: 0-40Kg/cm<sup>2</sup>
- Least Count : 0.1Kg/cm<sup>2</sup>
- Display: Digital & Computerized both
- Clamping arrangement: Pneumatic
- Compressed Air Pressure: 2-5Bar
- Opening in upper clamp: 35.5 mm diameter
- Openings in lower clamp: 38.1 mm diameter
- Rate of fluid displacement: 95cc/minute
- Test fluid: Glycerin
- Motor: ¼ HP Single Phase
- Peak Hold Facility: Yes
- Safety Switch: Yes
- RS232 port with software
- Accuracy: ± 1% within 10% to 90% of entire range as per IS:1828
- Standards: ASTM D3786, ASTM D774



### **FEATURES:**

- Digital & Graphical indication of readings.
- Pneumatic clamping of sample.
- This equipment is completely microprocessor based.
- TARE facility incorporated.
- Peak Hold facility for keeping the maximum value in the memory.
- LCD display with backlit.
- RS232 communication port with software to connect with PC
- Report includes Load vs. Time Graph, Peak Value of B.S, Date, Time, Operator ID etc.
- Microprocessor based display for accurate test results
- Highly accurate test results under multi directional Force
- Strong Gripping clamps
- Grooved structure of Test Specimen Holder to avoid slippage and intact holding of specimen under test
- No slippage in case specimen is tightened uniformly using pneumatic pressure.
- Computer/ Laptop: Client Scope
- Air Compressor: Client Scope

## GSM ROUND CUTTER

**LabZenix GSM Round Cutter** is an essential tool for accurately determining the grammage (grams per square meter) of materials like paper, fabric, and films. This device is widely used in industries such as textiles, paper manufacturing, and quality control labs to ensure product consistency and standard compliance.

Designed for precision, the GSM Round Cutter produces perfectly circular samples of a specific area, making it easy to calculate the GSM value using a standard weighing scale. It eliminates the errors associated with manual cutting, ensuring uniformity and reliability in measurements.

This user-friendly cutter is made from durable materials and features sharp, high-quality blades for effortless operation. Its compact design and simple mechanism make it suitable for both industrial and laboratory use.

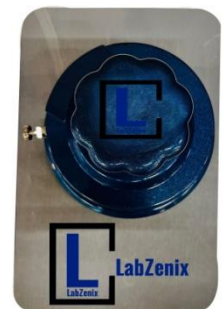
By utilizing the **GSM Round Cutter**, manufacturers can achieve accurate material analysis, maintain quality standards, and optimize production processes. It is a reliable and cost-effective tool for quality assurance.

### **TECHNICAL DATA**

- Model: LZGSMRC-1
- Sample Area: 100 sq.cm
- Sample Diameter: 112.8 mm
- Handle material: Bakelite molded
- Movement of Handle: ¼ round to cut a sample

### **FEATURES:**

- Table Top Model
- High-Quality Aluminum pressure die cast the main body
- Light weight and resilient
- Heavy Duty German cutting Blades with GSM Round Cutter
- Available with Safety Latch Facility



## HYDRAULIC TYPE GSM ROUND CUTTER

**LabZenix Hydraulic GSM Round Sample Cutter** is an essential tool for precise sample preparation in industries like textiles, paper, and packaging. Designed to provide accurate circular samples for GSM (grams per square meter) testing, this cutter ensures reliable quality control in material analysis.

Equipped with a hydraulic mechanism, the cutter offers effortless operation, reducing manual effort and enhancing efficiency. Its sharp blades deliver clean, uniform cuts, suitable for various materials such as fabrics, non-wovens, plastics, and boards. The ergonomic design and sturdy build make it durable and easy to handle in laboratory or industrial settings.

This device is a must-have for professionals seeking consistent and reproducible results. With minimal maintenance requirements and user-friendly features, the **Hydraulic GSM Round Sample Cutter** enhances productivity and accuracy in material testing, making it a valuable investment for quality assurance processes.

### **TECHNICAL DATA:**

- Model: LZHGSMRC-1
- Sample Area: 100 sq.cm
- Sample Diameter: 112.8 mm
- Handle material: Mild Steel Die Cast
- Movement of Handle: Round to cut a sample

### **FEATURES:**

- Table Top Model
- High-Quality M.S die cast the main body
- Heavy weight and Rugged
- Heavy Duty German cutting wheels type Blades
- Capable of cutting upto 9 ply corrugated board



## **DIGITAL WEIGHING BALANCE**

### **SPECIFICATIONS:**

- Weighing Capacity: 200gm
- Least Count: 0.001gm
- Display Resolution: 2,00,000
- Pan Size: 110mm (Diameter)
- Draft Shield: Included
- Display Digits/ Size: 7 Digits/ 13mm
- Operating Temperature: +10 Deg. C to +50 Deg. C
- Calibration: External
- Processor: Digital 8 bit micro-computer
- Technology: Magnetic Force Restoration Technology(MFRT)
- Display: Green Vacuum Fluorescent Display (VFD)
- Power Supply: Input- 230V AC, 50 Hz Output- 6.9V DC @ 1.5A Max Watt- 13W



## **DIGITAL WEIGHING BALANCE**

### **SPECIFICATIONS:**

- Weighing Capacity: 300gm
- Least Count: 0.01gm
- Display Resolution: 2,00,000
- Pan Size: 110mm (Diameter)
- Draft Shield: Included
- Display Digits/ Size: 7 Digits/ 13mm
- Operating Temperature: +10 Deg. C to +50 Deg. C
- Calibration: External
- Processor: Digital 8 bit micro-computer
- Technology: Magnetic Force Restoration Technology (MFRT)
- Display: Green Vacuum Fluorescent Display (VFD)
- Power Supply: Input- 230V AC, 50 Hz Output- 6.9V DC @ 1.5A Max Watt- 13W



## **MOISTURE METER- DELMHORST P-2000**

A **moisture meter** is a crucial device for measuring the moisture content in materials like wood, soil, paper. It ensures accurate readings, aiding in quality control and preventing damage caused by excess or insufficient moisture. Commonly used in construction, and manufacturing, these devices offer quick and reliable results. With digital displays and advanced sensors, moisture meters are easy to use, enhancing efficiency in professional and industrial applications.

### **TECHNICAL DATA:**

- Instrument Size – Portable carried in a case
- Power Supply – 110 / 220 VAC, 50/60 Hz
- Moisture range:
  - 4.3% to 18% for Paper
  - 8% to 40% baled scrap paper
- Display – LCD Display



## **MOISTURE METER- PC-MS7000**

A **moisture meter** is a device primarily used to measure the moisture content in various materials, ensuring optimal quality and performance. It is widely utilized in industries like agriculture, construction, and manufacturing to prevent issues caused by excess or insufficient moisture. From monitoring soil conditions to evaluating wood or paper, moisture meters provide accurate, real-time data. Their portability, digital displays, and ease of use make them indispensable for professionals seeking reliable results.

### **TECHNICAL DATA:**

- Instrument Size – Portable carried in a case
- Power Supply – 110 / 220 VAC, 50/60 Hz
- Moisture range:
  - 9% to 30% moisture content.
- 9 material species groups in memory.
- Max., Min., Data hold, Self-calibration.
- Size: 180 x 72 x 32 mm.
- Communication: RS-232.



## **CORE COMPRESSION TESTER- DIGITAL**

**LabZenix Core Compression Tester** is a specialized device used to evaluate the compression strength of cylindrical cores, such as paper, cardboard, or plastic tubes. It ensures accurate measurement of load-bearing capacity, essential for quality control in packaging and industrial applications. With a robust design, advanced load cells, and precise controls, this tester provides reliable results, helping manufacturers maintain product integrity and meet industry standards efficiently.

### **TECHNICAL DATA**

- Model :- LZCCT- 1000 & LZCCT- 1500
- Capacities: 1000Kgf & 1500Kgf
- Display: LCD with Backlit
- Accuracy:  $\pm 2\%$  full scale of FSD
- Least Count: 100gm
- Power: 220V, Single phase, 50 Hz
- Test Plate Dimensions: As per the Core/ Cone Specifications.
- Speed Drive: 10mm/min to 100mm/min.

### **FEATURES:**

- Microprocessor based display for accurate test results
- Highly accurate test results under uniform compression Force
- Rugged double column structure.
- TARE and Peak Hold Facility Available
- Over travel protection
- Strong base plate with rugged structure
- Digital Display LCD with backlit



## **DROP TESTER- DELUXE**

**LabZenix Drop Tester** is a crucial instrument used to evaluate the durability and performance of packaging materials and products under simulated drop conditions. It helps determine a product's resistance to impact, ensuring its structural integrity during handling, transportation, and storage. This device is widely used in industries like packaging, electronics, appliances, and consumer goods to maintain quality standards.

The Drop Tester is designed to simulate free-fall drops from varying heights, replicating real-world scenarios. It accurately measures the effects of impact on packaging or products, including deformation, breakage, and other potential damages. Equipped with adjustable height settings, clamps, and a robust testing platform, the device ensures precise and consistent results.

Modern Drop Testers feature digital controls and data recording capabilities, allowing users to analyze results efficiently. They support multiple testing standards, such as ASTM and ISTA, for global compliance. By identifying weaknesses in packaging or design, the Drop Tester helps manufacturers improve product safety, reduce transit losses, and enhance customer satisfaction. Durable, user-friendly, and reliable, this equipment is an essential tool for quality assurance in industrial and commercial sectors.

### **TECHNICAL DATA:**

- Model: LZDT-1
- Height: 1.8 meter (Adjustable)
- Load: Up to 50Kg.
- Minimum Drop Height: 400mm (0.40 m)
- Maximum Drop Height: 1800mm (1.8 m)
- Maximum sample Weight: 50 Kg
- Sample Mounting table: 500mm x 500 mm
- Adjustable angle holder is provided with the device.
- Type of tests:
- Straight Drop
- Angular Drop
- Safety: Locking pin
- Standards: IS:7028 Pt IV



### **FEATURES:**

- Provision to uplift test platform by guide mechanism
- Drop Height adjustable clamp
- Straight and Angular Drop tests can be performed on a single Instrument
- Strong base plate with rugged structure
- Optional Features: Pneumatic model and in various platform sizes also available as per requirement.

## **DROP TESTER- MOTORIZED**

**LabZenix Motorized Drop Tester** is an advanced testing instrument designed to assess the durability and impact resistance of products and packaging. Unlike manual drop testers, the motorized version ensures consistent and precise testing by automating the drop process. This device is widely used in industries such as packaging, electronics, appliances, and consumer goods to simulate real-world handling and transportation conditions.

The motorized drop tester features a motor-driven mechanism to lift and release test samples from adjustable heights with high accuracy. It allows users to perform free-fall drops, edge drops, and corner drops, replicating various impact scenarios. The motorized system eliminates manual intervention, reducing human error and ensuring repeatability in test results.

Equipped with digital controls and height adjustment features, the motorized drop tester offers enhanced precision. It often includes data logging capabilities for easy result analysis, aiding manufacturers in identifying weak points in product design or packaging. Conforming to international testing standards like ASTM and ISTA, this equipment ensures global compliance.

With its robust construction, user-friendly interface, and reliable performance, the motorized drop tester is an essential tool for improving product safety, reducing damages, and ensuring quality assurance across industries.

### **TECHNICAL DATA:**

- Model: LZDT-M
- Height: 1.8 meter (Adjustable)
- Load: Up to 50Kg.
- Minimum Drop Height: 400mm (0.40 m)
- Maximum Drop Height: 1800mm (1.8 m)
- Maximum sample Weight: 50 Kg
- Sample Mounting table: 500mm x 500 mm
- Uplift of Mounting Table: Motorized
- Adjustable angle holder is provided with the device.
- Type of tests:
- Straight Drop
- Angular Drop
- Safety: Locking pin
- Standards: IS:7028 Pt IV



### **FEATURES:**

- Motorized uplift of test platform
- Drop Height adjustable clamp
- Straight and Angular Drop tests can be performed on a single Instrument
- Strong base plate with rugged structure
- Optional Features: Pneumatic model and in various platform sizes also available as per requirement.

## **COBB SIZING TESTER**

**LabZenix Cobb Sizing Tester** is a specialized instrument used to measure the water absorption capacity of paper, cardboard, and other packaging materials. It is a vital tool in the paper and packaging industries for assessing the material's resistance to water penetration, which directly affects its quality and usability in different environments.

The tester operates by exposing a specific area of the test sample to water for a predefined period and measuring the weight increase due to water absorption. This method provides precise results, helping manufacturers evaluate the suitability of their materials for various applications, such as packaging liquids or storing goods in humid conditions.

Designed with simplicity and accuracy in mind, the Cobb Sizing Tester features a standardized cylindrical ring, a water-tight clamping device, and an absorbent pad for sample drying. It adheres to international testing standards like ISO 535 and TAPPI T441, ensuring global compliance.

By identifying the water absorption properties of materials, the Cobb Sizing Tester helps manufacturers optimize material selection and improve product performance. Durable and user-friendly, this device is indispensable for maintaining high-quality standards in paper and packaging industries.

### **TECHNICAL DATA:**

- Inner diameter of reservoir: 112.8 mm
- Area of opening of reservoir: 100 cm<sup>2</sup>
- Height of reservoir: 25 mm
- Diameter of SS roller: 100 mm
- Length of SS roller: 200 mm
- Weight of SS roller: 10 kg



### **RELEVANT STANDARDS:**

**IS 1060 (Part 1) – 1966:** Methods of Sampling and Test for Paper and Allied Products

**TAPPI – T 441 om-90:** Water Absorptiveness of Paper and Paperboard (Cobb test)

## LABORATORY HOT AIR OVEN - DIGITAL

**LabZenix Laboratory Hot Air Oven - Digital** is an essential tool for precise thermal applications in research, quality control, and industrial laboratories. Designed for drying, sterilizing, and baking, it ensures uniform heat distribution through advanced digital temperature controls. The digital interface allows accurate temperature settings, typically ranging from ambient to 250°C, with high stability. Constructed with durable materials, it features double-walled insulation to minimize heat loss. Ideal for laboratories in pharmaceuticals, chemicals, and materials testing, the oven delivers reliable and efficient performance, making it a key instrument for maintaining rigorous experimental and quality standards.

### **TECHNICAL DATA**

- Inner dimensions of test chamber: 1. 18" x 18" x 18"
- 2. 24" x 24" x 24"
- Temperature range:
- Ambient to 250° C
- Ambient to 300° C
- Power Requirement: 220/ 230 V AC
- Result Display: LED (Digital)
- Tolerance:  $\pm 2^{\circ}\text{C}$
- Resolution: 1°C
- Power Supply: 15A, 220V, Single phase, 50 Hz
- Timer Range: Up to 999 hrs
- Shelves: 2 Nos.

### **FEATURES:**

- Double walled chamber; inside body: stainless steel
- Outer body – Mild Steel powder Coated
- Insulation between the double walls is provided by imported mineral glass wool
- Microprocessor based Programmable Digital temperature controller cum indicator
- Highly accurate test results under uniform temperatures in the chamber
- Maximum Thermal Efficiency by insulation means.
- Digital Preset Timer
- Provision of Set Time and Process time on timer display
- Bright LED display
- Provision to set PV and SV value
- Equipped with Air circulation fan for uniform and homogenous heating and maintaining temperature inside the chamber
- Vent for forced air changes and calibration facility



## **ELMENDORF TEARING TESTER**

**LabZenix Elmendorf Tearing Tester** is a precision instrument used to measure the tearing strength of various materials, such as paper, textiles, plastic films, and cardboard. It plays a crucial role in quality control by determining the material's resistance to tearing under specific conditions. This data is essential for ensuring product durability and performance in packaging, printing, and industrial applications.

The tester operates on a pendulum principle, where a sample with a pre-cut notch is subjected to a controlled tearing force. As the pendulum swings, it measures the energy required to propagate the tear through the material. The results are displayed in standardized units, allowing manufacturers to evaluate and improve material strength efficiently.

Modern Elmendorf Tearing Testers come with advanced features like multi-range pendulum options to cater to different material types and thicknesses. Some models also include software integration for data analysis and report generation, enhancing usability and precision.

Complying with international standards like ASTM D1922 and ISO 1974, the Elmendorf Tearing Tester ensures reliable and repeatable results. Its robust design, ease of operation, and high accuracy make it an indispensable tool for industries focused on maintaining superior material quality and performance, ultimately reducing the risk of product failure.

### **TECHNICAL DATA:**

- Capacity of the Tearing : 1600 g (can be increased to 3200 g or 6400 g by adding augmenting weights)
- Tearing Distance : 43 ± 0.15mm
- Size of Slit : 20mm
- Reading of Scale : 0 to 100% Range
- Scale Reading: 0 to 100% of range
- Accuracy: ± 2% within entire range.
- Least count of scale : 1%
- Pendulum Release Mechanism: Manual through brake release pin
- Standards: ASTM D1424 – 09(2013)1, ASTM D624 – 00(2012), ASTM D689.

### **FEATURES:**

- The instrument consists of a falling pendulum to cover various measuring ranges.
- High-Quality rugged structure with corrosion resistant main body
- Falling pendulum types instrument
- Single handed hassle free operation
- Highly accurate test results under multiple pendulum weights
- Strong gripping fixture for holding test samples
- Pendulum release mechanism to cover various measuring range
- Inbuilt calibration weights



## **PAPER STIFFNESS TESTER**

**LabZenix Paper Stiffness Tester** measures the stiffness and bending resistance of paper, board, and packaging materials. It ensures accurate evaluation of material quality and performance under specific conditions. Widely used in the packaging, printing, and paper industries, this tester helps manufacturers maintain high standards, optimize product design, and ensure customer satisfaction.

### **TECHNICAL DATA:**

- Weight of pendulum – 500, 1000, 2000, 3000, 5000 SU
- Weight of stud –  $10 \pm 0.001\text{gm}$
- Sample size –  $70 \pm 1\text{mm} \times 38.1 \pm 0.3\text{mm}$
- Unit scale range - 0 – 100
- Angle -  $7.5^\circ$ ,  $15^\circ$
- Motor – 2 RPM
- Power – 220V, 50Hz, single phase



### **FEATURES:**

- The friction of pendulum is based on high precision bearing.
- It has 2 clamps. 1 is ratchet style and other is the flat type.
- The instrument stands on telescopic legs.
- The main body is made up of mild steel or aluminium.
- It has combination finish and bright chrome plating.
- Standards: ASTM D1388

## **VIBRATION TABLE**

Vibration test is not only desired for products used in grueling working circumstances and being looked on as the environmental test in the distribution routes. It is because that the effect of shock in transit having on products is to such an extent that they deteriorate progressively and it often leads products unusable. Needless to say, ordinary products are mostly put in far severer conditions in the distribution routes than in their working condition.

The test method simulated the conditions occur on a package during transit and is an effective equipment for package design and performance analysis before production and use.

### **TECHNICAL DATA:**

- Model: LZ-VPT-40
- Test Load Capacity: 40 Kg
- Table Size: 600mm x 600mm
- Frequency: 2 – 6 Hz
- Railing Guard Height: 300 mm
- Maximum Acceleration: 1.8G
- Amplitude: 25mm
- Timer Range: 0- 999 minutes
- Standard Vibration: Rotary
- Controls: Digital
- Power Supply: 220 V AC, Single Phase, 50Hz



### **TECHNICAL DATA:**

- Model: PC-VPT-100
- Test Load Capacity: 100Kg
- Table Size: 800mm x 800mm
- Railing Guard Height: 300mm
- Maximum Acceleration: 1.8G
- Frequency: 2 – 6 Hz
- Amplitude: 25mm
- Timer Range: 0 – 999 minutes
- Standard Vibration: Rotary or Circular Synchronous Motion, Non- Synchronous Motion, Vertical Linear Motion
- Power Supply: 220 V AC, Single Phase, 50Hz

### **FEATURES:**

- Independent control panel for operator's safety.
- The digital screen displays the vibration frequency.
- AC frequency control.
- Unique Design, Easy Operation.
- Memory- 4 Keys (Frequency & Time can be programmed)
- Standards: ASTM D 999 – 96,

## **PUNCTURE RESISTANCE TESTER**

**LabZenix Puncture Resistance Tester** is used to determine the resistance to puncture of paper and paperboard. The equipment is used to measure the resistance of paper, paperboard and other similar materials when subjected to puncture and determination of absorbed energy. The equipment is designed to give an accurate and reliable indication of the resistance offered by the packaging materials to puncture.

### **TECHNICAL DATA:**

- Range of Weights: 6, 12, 24, 48 Joules
- Pendulum arm travels through 90°
- Display: Digital (LED)
- Power: Single Phase, 220V AC, 50Hz
- Standards: ASTM D781.
- Incorporates Micro Processor-based control panel
- Stiff, strong steel frame to avoid losses of energy
- Triangular pyramid striking head

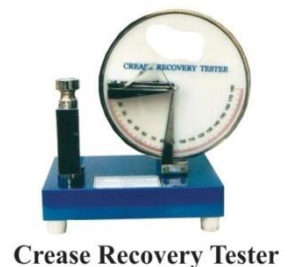


## **CREASE RECOVERY TESTER**

**LabZenix Crease Recovery Tester** is used to measure the Crease Recovery property of the fabric by measuring the recovery angle on a specific scale under specific weight. The crease under specified load for fix time and is then transfer to the device, where one endof the specimen is held in a spring loaded clamp and other is allowed to fall free under itsown weight.

### **TECHNICAL DATA**

- Display Type: Analogue
- Angle of Measurement: 10 to 180 Degree
- Testing Load: 10N
- Size of Test Specimen: 40mm x 15mm
- Material of Construction: MS Powder Coated and Hard ChromePlating.
- Weight of Equipment: Approx. 6 Kg.



Crease Recovery Tester

## **EDGE CRUSH TESTER- DIGITAL**

**LabZenix** Crush Tester is designed for performing Ring Crush Test (RCT), Edge Crush Test (ECT)& Flat Crush Test (FCT) on a variety of materials like paper, paperboard, etc.

### **TECHNICAL DATA:**

- Measuring range: 100Kgf
- Measuring Unit: kgf
- Least count: 0.01 kgf
- Accuracy:  $\pm 2\%$  of reading.
- Test speed: 12.5 mm/min.
- Platen Size: 100mm Diameter.
- Supplied with attachments for testing Ring Crush & Edge Crush.
- Power: 220 VAC, 50Hz Single Phase.
- Related Standards: IS 7063-2



### **FEATURES:**

- Microprocessor based accurate read-out on a digital display.
- Electronic Force measurement by the Load.
- Electro-mechanical Loading System.
- Sophisticated Electronic Controls for precision and easy operation.
- Peak-Hold facility.
- Separate fixtures for ring crush, edge crush and flat crush test.
- Highly accurate test results under compression force
- Strong gripping clamps.

## **PINHOLE TESTER**

**LabZenix** Pinhole Tester, also known as the Light Box, this is equipment which can help detect pin holes in aluminum foils used in pharmaceutical packaging. Pinholes are micro leaks in the foil surface which can reduce the shelf life or stability of the product they are used to protect. This equipment can be used only on opaque materials.

### **TECHNICAL DATA**

- Illuminated area : 12 x 12 Inches
- Digital Counter Meter and manual Count switch.
- High intensity, high diffusion Polarised light source under the glass.
- With ON/OFF switch.
- Material of Construction: Aluminium & PVC
- Blackout Hood to prevent room ambient light to fall on the Foil Surface. (So you can test even with the room lights ON)



### **SPECIAL FEATURES:**

- Glass top over a high intensity diffused light source (Polarised)
- Blackout Hood to prevent room light from falling on the Test Sample's top surface.
- Digital Counter (Manually operated)
- Power: 220 Volts AC.

