CELL INSTRUMENTS
| Material Testing Solutions

TLT-02 Top Load Tester

Application

Load testing is essential for ensuring the structural integrity and reliability of packaging containers such as bottles, jars, drums, trays, cartons, and boxes. It verifies that these containers can withstand the stresses of stacking, shipping, and storage without collapsing or deforming, thereby protecting the product inside. This testing helps meet industry standards, preventing product damage and loss, and ultimately saving costs associated with returns and replacements. Additionally, it aids in optimizing packaging design and material usage, ensuring a balance between strength and efficiency, while maintaining the brand's reputation for quality and reliability.

Technical Features

This unit is under PLC control (with industrial-level stability) and operated through an HMI touch screen. The use of a precision ball lead screw mechanism ensures consistent and accurate speed and displacement control. It features a specially designed and unique program catering to tests of top load.

1. A 7-inch HMI touch screen for user-friendly operation.
2. PLC control for efficient functioning.
3. Precision ball lead screw for reliable results.
4. Adjustable test speed.
5. Compatibility with multiple compression plates of shape and diameter.
6. Overload protection and automatic returning function.
7. Microprinter included.
8. RS 232 port for data communication and professional software (optional).

Unique Programs

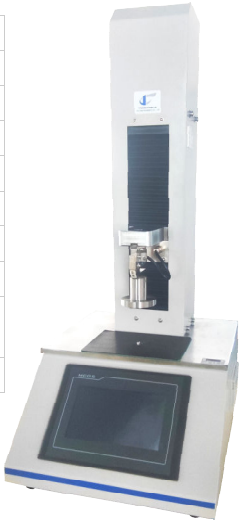
Peak: To measure the container crush/compressive load
Fixed Deformation: To measure the load when the container is at a deformation
Fixed Load: To measure how the sample deforms under a certain load
Single Compression: To compress the container once and then analyze
Cycle Compression: To compress the container in cycles and then analyze

Principle

Top load testing involves placing the container on the testing platform, aligning it properly, and applying a compressive force from the top. The force is increased gradually until the container deforms or collapses. Tester measures the applied force and deformation, recording the maximum force the container withstands or the deformation the container shows at a constant load. The data is analyzed to assess the container's strength and performance against predefined standards.

Main Parameters

Test Range	0-500N (or as required)
Sample Height	200mm
Sample Diameter	120mm max
Test Speed	1~500mm/min
Displacement Accuracy	0.01mm
Force Accuracy	0.5% Full Scale
Control	PLC and HMI Screen
Data Output	screen, microprinter, RS232 (optional)
Power	110~ 220V, 50/60Hz



Applicable Standards

ASTM D 2659, ASTM D 4577, ASTM D642, ISO 8113,ASTM D 4169

Cell Instruments Co., Ltd.
Headquarters: No. 5577 Gongyebei Rd,Licheng District, Jinan, 250109, Shandong, P.R.C.

www.celtec.cn www.polytester.com www.qualitester.com
www.packqc.com www.celtec.com.cn www.leakagetester.com
cnceltec.com materialstests.com pharmacopoeiatest.com

Contact Us Now
trading@celtec.cn
Mobile/WeChat:
+86 18560013985