KASON-LST600 Leak and Seal Strength Tester

The KASON-LST600 Leak and Seal Strength Tester is professionally designed for the quantitative determination of seal strength, heat-seal quality, overall bag burst pressure, and seal leak performance across all edges of flexible packaging and aseptic packaging formed through various heat-sealing and bonding processes. It facilitates the analysis of material properties—such as compressive strength and burst strength—utilized in flexible packaging bags. Furthermore, it enables the quantitative assessment of the sealing performance of various tamper-evident plastic bottle caps, the detachment strength of cap connections, and the stress strength of the cap material; it also supports the evaluation and analysis of bottle body integrity, compressive resistance, and burst resistance. Additionally, it allows for the quantitative measurement of various parameters for flexible tubes, including overall sealing performance, pressure resistance, cap-to-tube connection strength, cap detachment strength, heat-seal edge strength, and crimp strength. Product Features:

1. Multiple positive pressure testing principles; features a re-test mode and fully automated operation.

2. Offers a variety of test modes, including burst testing, creep testing, creep-to-failure testing, and pressure-holding.

3. Provides dual testing methods—constrained expansion and unconstrained expansion—allowing users to select the appropriate method as needed (requires the purchase of optional test accessories).

4. Real-time display of test curves and intelligent statistical analysis of test data.

5. Selectable test ranges allow for the easy execution of non-standardized tests.

6. Utilizes imported components from world-renowned brands, ensuring stable and reliable performance.

7. Features a high-precision, high-pressure gas flow regulation device that accurately adjusts inlet flow rates, ensuring consistent test conditions and facilitating high repeatability of test data.

8. Equipped with an industrial-grade touchscreen, one-touch operation, and an intuitive user interface; supports remote software upgrades and maintenance.

9. Supports a bilingual (Chinese/English) user interface to meet diverse language requirements.

10. Allows for the free switching between globally recognized units of measurement.

11. Features automatic data storage and an automatic memory function in the event of power loss, preventing data loss.

12. Built-in data storage capacity for up to 200 records, satisfying the demand for storing large volumes of data.

13. Implements a multi-level user permission management system with password-protected login access.

14. Includes a built-in micro-printer and a universal USB data interface for convenient data output and transfer (optional).

15. Complies with China's GMP requirements regarding data traceability, meeting the specific needs of the pharmaceutical industry (optional).

Reference Standards:

ISO 11607-1, ISO 11607-2, GB/T 10440, GB 18454, GB 19741, GB 17447, ASTM F1140, ASTM F2054, GB/T 17876, GB/T 10004, BB/T 0025, QB/T 1871, YBB 00252005, YBB 00162002, YY/T 0681.3, YY/T 0681.5, YY/T 0681.9.

Test Applications:

Basic Application Plastic Composite Pouches

Pressure Burst Testing: Suitable for testing the pressure resistance and burst strength of various packaging bags, including those made from plastic films, aluminum films, paper-plastic laminates, and aluminum-plastic laminates.

Tube Testing:Applicable to packaging tubes for various household cleaning and personal care products, as well as tubes used in other industries. Examples include tubes for toothpaste, facial cleansers, cosmetics, various medicinal ointments, food packaging, etc.

Creep Testing: Suitable for evaluating the creep performance of various packaging bags, boxes, and similar containers.

Creep-to-Rupture Testing: Suitable for evaluating the creep-to-rupture performance of various packaging bags, boxes, and similar containers.

Blister Pack Burst Testing: Suitable for testing the pressure resistance of various blister packaging formats.

Extended Applications:

Cylindrical Composite Cans: Testing of metal end-cap detachment force and rapid leakage characteristics.

Three-Side Seal Materials: Suitable for pressure resistance testing of packaging bags that feature heat seals on three sides while remaining open on the fourth side.

High-Pressure Testing: Capable of testing pressures reaching up to 1.6 MPa.

Tamper-Evident Closures: Suitable for testing the sealing integrity of various tamper-evident

closures. Examples include caps for cola bottles, mineral and purified water bottles, general beverage bottles, cooking oil containers, condiment bottles (soy sauce, vinegar, cooking wine, etc.), easy-open three-piece cans (beer, soft drinks, etc.), and cylindrical paper packaging cans (for potato chips, shrimp crackers, etc.).

Aerosol Valve Testing: Suitable for testing the sealing integrity of various aerosol valves. Examples include valves used in insecticides, hair mousse, hair gel, medicinal sprays, spray paints, etc.

Parameter

Item	Leak and Seal Strength Tester
Test Range	0–600 kPa / 0–87 psi (Standard)
	0–1600 kPa / 0–232 psi (High-pressure range customizable)
Resolution	0.1 kPa / 0.01 psi
Pressure Accuracy	±0.25% FS
Inflation Head	Φ10 mm (Standard); Φ4 mm, Φ1.6 mm (Optional)
Inflation Flow Rate	0.01–10 L/min
Pressure Holding Time	0.1 s – 999,999.9 s
Air Source	Compressed Air (Air source provided by user; optional accessory available)
Air Source Pressure	High Pressure: 0.6 MPa – 1.6 MPa
Air Source Connection	High-Pressure Tubing: Φ8 mm Reinforced Polyurethane Hose
Air Source Pressure	Low Pressure: 0.5 MPa – 0.7 MPa
Air Source Connection	Low-Pressure Tubing: Φ6 mm Polyurethane Hose
Restraint Frame Dimensions	280 (L) × 380 (W) × 380 (H) mm
Main Unit Dimensions	400 (L) × 400 (W) × 240 (H) mm
Power Supply	220 VAC ±10% 50 Hz / 110 VAC ±10% 60 Hz (Select one)
Net Weight	Approx. 18 kg

Product Configuration:

Standard Configuration: Main unit, micro-printer, test restraint fixture, sealing gasket, Φ8 mm polyurethane tubing (3m);

Optional Accessories: Specialized software, communication cable, extended application test fixtures, air compressor, GMP computer system compliance package; Restraint Plate Test Fixture; Open-Package Test Fixture; Plastic Tamper-Evident Cap Sealing Performance Test Fixture; Flexible Tube Sealing Performance Test Fixture; Aerosol Valve Sealing Performance Test Fixture; Stainless Steel Pressure Tank; Mandrel and Safety Fixture for Testing End-Cap Separation Force on Cylindrical Composite Cans;

Note: The pneumatic interface on this unit is designed for Φ8 mm polyurethane tubing; the air supply must be provided by the user.

FOCUS IN MATERIAL TEST

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