

KASON-LST400 Leak, Airtightness, and Seal Strength Tester

The KASON-LST400 Leak, Airtightness, 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 sterile packaging—specifically those formed through various heat-sealing or bonding processes. It also facilitates the analysis of material properties used in flexible packaging bags, such as compressive strength and burst strength. Furthermore, the instrument enables the quantitative measurement of sealing performance for various plastic tamper-evident bottle caps, cap-to-bottle detachment strength, and material stress strength; it also supports the evaluation and analysis of bottle body integrity, including airtightness, compressive resistance, and burst resistance. Finally, it allows for the quantitative determination of various parameters for flexible tubes, including overall sealing performance, pressure resistance, cap-to-tube connection strength, 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 testing 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 optional testing 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 precisely controls inlet flow rates, ensuring consistent test conditions and facilitating high data repeatability.
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) operating interface to meet diverse language requirements.
10. Allows for the free switching between globally recognized standard test units.
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 of up to 200 records, satisfying the requirements 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

Test Applications:

Basic Application Plastic Composite Bags ****Pressure Burst Testing:**** Suitable for pressure burst testing of various packaging bags, including those made from plastic films, aluminum films, paper-plastic laminates, and aluminum-plastic laminates.

Tube Testing: Suitable for packaging tubes used for various personal care products, as well as tubes for packaging items in other fields. Examples include tubes for toothpaste, facial cleansers, cosmetics, various medicinal ointments, food packaging, etc.

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

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

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

Airtightness Testing

(Pressure Decay Method): Suitable for leak and water-resistance testing (airtightness) of various products, including containers, hollow objects, waterproof electronic devices, outdoor lighting fixtures, etc.

Extended Applications ****Cylindrical Composite Cans:**** Testing for the detachment force of metal end caps and for rapid leakage detection.

Three-Side Sealed Materials: ****** Suitable for pressure resistance testing of packaging bags that are heat-sealed on three sides and open on one side.

High-Pressure Testing: ****** Capable of testing at pressures reaching up to 1.0 MPa.

Tamper-Evident Closures: ****** Suitable for testing the sealing performance of various tamper-evident closures. Examples include caps for cola bottles, mineral/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 performance of various aerosol valves. Aerosol valves are utilized in a wide range of products, including various insecticides, mousses, hair gels, medicinal sprays, spray paints, and more.

Technical Specifications:

Item: KASON-LST400 Leakage, Airtightness, and Seal Strength Tester

Test Range: 0–400 kPa (Standard); 0–1000 kPa (High-pressure version available via customization)

Resolution: 0.1 kPa

Pressure Accuracy: $\pm 0.25\%$ FS

Inflation Head: Φ 10 mm (Standard); Φ 4 mm, Φ 1.6 mm (Optional/Customizable)

Inflation Flow Rate: 0.01–10 L/min

Pressure Holding Time: 0.1 s – 999,999.9 s

Air Source: Compressed air (User-supplied; optional accessory available)

Air Source Pressure (High Pressure): 0.6 MPa – 1.0 MPa

Air Source Interface (High Pressure): Φ 8 mm Reinforced Polyurethane Tubing

Air Source Pressure (Low Pressure): 0.5 MPa – 0.7 MPa

Air Source Interface (Low Pressure): Φ 6 mm Polyurethane Tubing

Restraint Frame Dimensions: 280 (L) \times 380 (W) \times 380 (H) mm

Main Unit Dimensions: 400 (L) \times 400 (W) \times 240 (H) mm

Power Supply: 220 VAC \pm 10% 50 Hz / 110 VAC \pm 10% 60 Hz (Select one)

Net Weight: Approx. 18 kg

※ Note: For users with specific requirements, our company is able to provide customized manufacturing services—within our technical capabilities—to fully meet user needs.

Product Configuration:

Standard Configuration:

Main unit, micro-printer, test restraint fixture, sealing gaskets, air tubing;

Optional Accessories: Professional 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 tooling for testing end-cap detachment force on cylindrical composite cans;

Note: The air source interface on this unit is designed for Φ 8 mm polyurethane tubing; the air source must be provided by the user.

FOCUS IN MATERIAL TEST

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