

Dansensor® Lippke 4000/4500 PACKAGE TESTING SYSTEM



Lippke 4000/4500 -
For food, pharma and
medical packaging

Benefits

- Tests of a wide range of packages
- No trace gas needed
- Seal strength testing
- Performs leak, seal and burst in one test
- Quantifiable test results
- Creep test (optional)
- Creep to fail test (optional)
- Bubble test (optional for Lippke 4500)
- Tests porous material (e.g. Tyvek®)
- IQ/OQ documentation

Features

- Multilingual user interface
- Compliant with ASTM standards:
 - **ASTM F1140:** Burst & creep for medical packages (without restraining plates)
 - **ASTM F2054:** Burst test (with restraining plates)
 - **ASTM F2095:** Pressure decay leak test (with or without restraining plates)
 - **ASTM F2096:** Bubble leak test (with water tank)
- Other standards:
 - **ISO 11607:** Packaging for terminally sterilized medical devices
 - **21 CFR Part 11:** Protects your data and ensures that all records are authentic and incorruptible
- Optional multitest capabilities:
 - Creep and leak
 - Creep and burst
 - Creep, leak and burst

Leak and seal strength measurement of all types of flexible, semi-rigid and rigid packages using air pressurization

The Dansensor® Lippke® package testing system is a bench top instrument designed to perform many currently accepted leak test methods. It measures the seal strength and package integrity of flexible, rigid, porous and laminated foil for food, pharma and medical packaging. It has an extensive array of standard features, available accessories and services, and meets applicable ISO & ASTM standards.

The package testing systems Dansensor Lippke 4000 and Lippke 4500 are designed with the user in mind and provide exact, definable and reproducible test results.

* The Dansensor Lippke 4000 is a standalone testing system with integrated user interface and can be used in both production and laboratory environments.

* The Dansensor Lippke 4500 is a PC based system that provides data, graphing, statistical analysis and data output capabilities.

HOW DOES IT WORK?

1: Burst test: The package is pressurized at a given rate to the point at which the seal bursts. (Burst test in compliance with ASTM F2054).

2: Leak test: The package is pressurized to a predetermined level and is held at that pressure for the required test time. The pressure loss is a quantifiable and repeatable test. (Pressure management and leakage testing per ASTM F2095).

3: Creep Test: The package is pressurized to a preselected pressure, near the burst limit, and held for a period of time. The seal performance is evaluated for holding under pressure for the prescribed time. Optional test mode: Creep and creep to fail. ASTM F1140.

4: Multi-Test: An optional multi-test feature can test the same package in up to three different test modes. Each mode is completed on a single sample, reducing sample loss. The test modes are: Creep and leak, creep and burst, creep, leak and burst.

5: Bubble Test: The package is placed under water, pressurized to a predefined pressure and held there at a predefined time. (Bubble test in compliance with ASTM F2096). Optional test for Lippke 4500.

ASTM Restraining Plate (optional):



Pneumatic Package Clamp PPC 300 (optional):



Closed Package Assembly (optional):



Technical Specifications

Available configurations	Lippke 4000	Lippke 4500
Power supply	103 - 264 VAC	103 - 264 VAC
Power frequency	47 - 63 Hz	47 - 63 Hz
Dimensions	13.5x10.3x5.1 inches (W x D x H), 34.4x26.2x13 cm	13.5x10.3x5.1 inches (W x D x H), 34.4x26.2x13 cm
Weight	14.3 pounds / 6.5 kg	14.3 pounds / 6.5 kg
Display	Integrated	External PC monitor
Common technical specifications		
Air pressure supply	4.0 - 8.0 bar	
Test time	1 - 10,000 Sec.	
Pressure units	mbar, millimeter of mercury (mmHg), pounds per square inch (psi)	
Number of test programs	500	
Environmental temperature	+15 °C - + 40 °C (+59 deg. F - 104 deg. F)	
Environmental RH	0 % - 90 % non condensing	
Two measuring ranges	1) 10 ... 1,000 mbar/0.145 ... 14.5 psi 2) 200 ... 3,000 mbar/2.9 ... 43.5 psi	
Resolution per measuring range	1) 0.1 mbar/0.0015 psi 2) 1 mbar/0.015 psi	
Accuracy of measurement	1) ± 0.5 mbar/0.007 psi or 1%* ** 2) ± 1%**	
Repeatability per measuring range	1) ± 0.5 mbar/0.007 psi or 1%* ** 2) ± 1%**	
Communication	RS232 port	
Compliance	CE	
Standards	ASTM F-1140, F-2054, F-2095, F-2096, 21 CFR Part 11, ISO 11607	

Specifications subject to change without notice.

* whichever is greater
** in specified range