



ALPHALAB

Leak Detector laboratory set.



The AlphaLab is a Leak Detector laboratory set dedicated to flexible packaging testing for the food, pet care and cosmetic Industries. It has been specifically designed for laboratories in Factories that have to follow stringent Food Safety Quality Inspection procedures and processes like ISO 22000 & HACCP. The leak test values are available in real time.

Current leak testing methods.

80% of flexible packaging used by food and pet food manufacturers, as well as the cosmetics industry, use immersion testing, also known as "bubble testing" to detect leaks.

While the bubble test helps to make leaks visible, it only works for large leaks and does not enable any measurement, even though HACCP audits under ISO 22000 (food safety) make the measurement of critical points mandatory.

Our instruments allow a very precise measurement of leaks. We use the constant pressure flow measurement method (DIN 55508-1 of 01/02/2018), the only method that works with flexible packaging.

AlphaLab unique feature: Altitude Resistance Simulation.

The objective of this simulation is to determine at what altitude a flexible packaging starts to leak when it is transported by air.

The flexible packaging is exposed to a stepwise differential pressure increase (mBar), that exactly replicates the stress encountered during air transportation because of altitude increase. At the same time, a leak test is being performed. The manufacturer can

therefore accurately identify the altitude at which his flexible packaging is starting to leak.

All parameters are configurable.

AlphaLab main advantages:

- ◆ Measure leaks > 5 µm.
- ◆ Data immediately available.
- ◆ Accurate analyzed results.
- ◆ ISO 22000 & HACCP compliance.
- ◆ Modified Atmosphere Packaging (MAP) packaging Control.
- ◆ Resistance altitude simulation (unique feature).
- ◆ Brand protection and lasting taste for your products.
- ◆ Cost savings (the **AlphaLab** operates without consumables).
- ◆ Manual calibration check.
- ◆ Visualization of the size of the leak via a coupler connection (optional **CharlieH2O**).

Operating instructions:

Place a sample under the perforating tower, adjust the tower manually until it is in contact with the sample. The test starts automatically.

There is no limit to the number of samples that can be tested.

Results are visible on the **AlphaLab** screen, these can be transferred instantly to a computer via a USB memory stick to study the results on a pivot table. These can also be visualised on a Gauss chart together with the pre-set parameters.

Technical specification:

The **AlphaLab** operates according to Flow measurement at a Constant Pressure, following DIN 55508-1 of 01/02/2018.

The **AlphaLab** consists of 2 separate units: an **AlphaTower** (patented perforating device) and an **AlphaLeakTester** (leak testing unit). The **AlphaTower** and the **AlphaLeakTester** are communicating via a PS/2 cable and a PU tubing.

1. AlphaTower:**Patented perforating device.**

OLED display 1.5".

Servo driven internal perforating thin conical stainless steel pointer.

Silicon bellows diameter: 15mm* (* other sizes / shapes: consult us).

Cantilever holder for free movement of tower.

**2. AlphaLeakTester:****Leak Detector unit.**

Structure: steel and ABS.



Display: 4.3" resistive touch screen.

Internal air pump.

Electronic pressure controller from U.S.A., 1000 mbar scale.

Mass flow meter from U.S.A., 1000 sccm scale.

Microprocessor: embedded ATMEL2560, 16 Mhz.

Calibrated leak port.

Foot print: 540 x 340 mm Weight: 10 Kg.

Optional: semi-automatic flow calibration check.

Astaara provides optional calibrated leaks for flow (**CharlieCal**). Each calibrated leak is delivered with a calibration certificate. A document is provided with the **CharlieCal** that allows to verify the correspondence between the flow rate measured by the Astaara leak detector and the value of the calibrated leak.

The **AlphaLab** is guaranteed 3 years.

WARRANTY TERMS AND CONDITIONS, other ASTAARA products, videos, dimensions, weights, drawings and further information @

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