

New Solutions for Packaging Quality Control

With a large range of instruments, **Anéolia** and its brand **Abiss®** presents innovative solutions to control the integrity of food packaging. Not only for MAP, but also for vacuum packaging and air packed products.

Leak detection on packages: Quantify to control the problem

Leakage can be a serious problem for food packaging. For Modified Atmosphere Packaging, MAP, a gas analysis at the production time doesn't guarantee that the gas content will remain correct during the product lifetime. If your package isn't well sealed, the leakage accelerates gas and water transfers, and the shelf life is reduced. The same problems can be observed on vacuum packaging and air packed food, promoting unwanted bacterial growth, and high moisture content. **abiss®** brand developed an innovative solution to detect pinholes on packaging: the **Exos**. This instrument uses "the pressure compensation method". An overpressure is applied to the packaging. If there is a leak, a continuous volume of air is injected into the package to maintain the pressure. The volume of air injected represents the gas leakage expressed in ml.atm/min, and the size of the pinhole can be expressed in μm by calculations.

Gas leaks are not only detected, they are quantified.

The **Exos** is the perfect solution to control the integrity of your packaging and to detect sealing faults. It can combine the leak detection with gas analysis and sealing resistance on

one packaging. When a "bubble test" can detect only 30% of 75 μm pinholes (standard ASTM-F2096), the **Exos** is effective down to 5 μm .

Gas analysis: instruments adapted to specific needs

Gas analysis to control MAP products evolves as industrial investments are made, and as production volumes rise. **abiss®** brand has a large range of gas analyzers; each one is dedicated to a specific need.

Starting with MAP - Legend

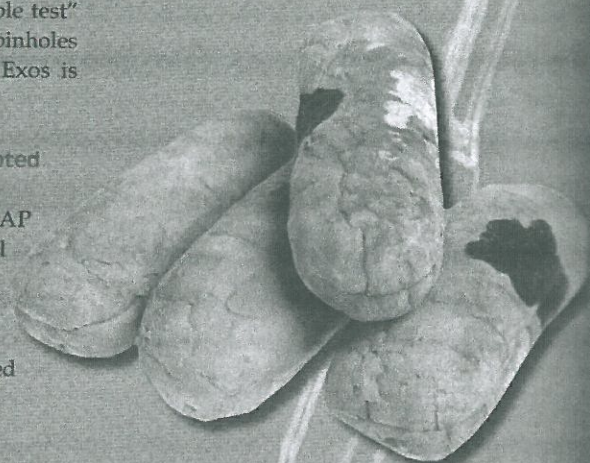
For seasonal production or for companies starting with MAP, a simple device at affordable price is needed. The **Legend** is an easy to use handheld instrument, specifically developed for this purpose. It analyzes the O_2 and/or CO_2 content of large to small headspaces, and it is sturdy enough for difficult production environments.

Long term investment in MAP - Ipos 2

The **Ipos** is a more advanced version of gas analyzer. It is suitable for companies who want to invest in a more complete solution to control MAP, with a high resolution, traceability, heavy-duty battery, and flow control. It is also a nomad instrument, which can be used as a handheld device or a bench-top instrument.

Managing big production volumes - Stratos & Exos

For high production volumes, easily repeatable tests for gas control are



needed, and measurements have to be preserved for traceability management. **abiss®** brand developed specific bench-top instruments for this purpose: **Stratos & Exos**. These devices are part of the **abiss®** open systems range. These products are characterized by their user-friendliness, so they can be used easily by production operators. The measurements can be stored directly in the instrument memory or on the network via an Ethernet connection, so records can be shared and secured on the network.

Managing large scale production and needing process automation - Oxylos

The **Oxylos** is the most advanced solution available on the market for MAP analysis, and packaging integrity. It is an automatic gas analyser, providing highly repeatable tests, reducing costs of quality tests, and guaranteeing maximum security for operators. The operator simply places the package in the instrument, and then the test is automatically run:

- No needle manipulation
- No variation in the test method with different operators
- No need for expensive consumables (no seal required)

As an automatic version of the **EXOS**, the **Oxylos** can also have as options leak and burst tests. The full version of the **Oxylos** – gas analysis – leak detection – burst test is used by the world leader of potato chips in its production plants.

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