



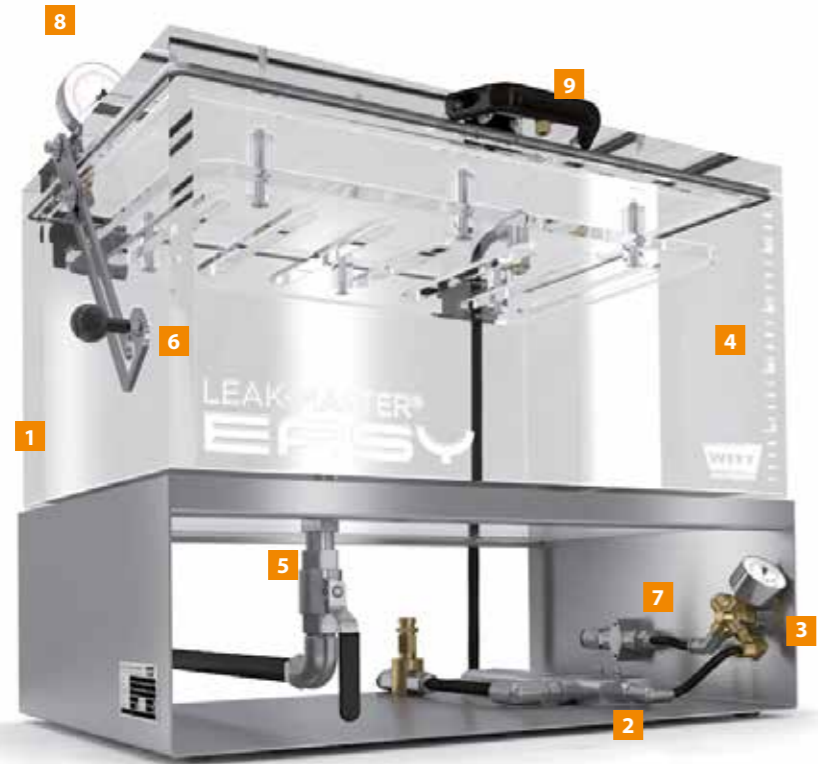
IS YOUR PACKAGE REALLY LEAK-TIGHT?

MICHAEL KALLWEIT: PRODUCT MANAGER – WITT-GASETECHNIK

Benefit from WITT's
certified quality
systems for leak
detection of all types
of packaging
Keyword: HACCP

LEAK-MASTER® EASY

Bubble-test leak detection



- 1 Perspex high-quality housing**
 - To be viewed from all sides
 - Robust and easy to clean
- 2 Venturi injector**
 - No electrical connections
 - Operation with compressed air
- 3 Pressure regulator**
 - Setting of vacuum
- 4 Water level**
- 5 Water drain**
- 6 Lid adjustment**
 - Avoids injuries
- 7 Ball valve**
- 8 Pressure gauge**
 - Control of vacuum
- 9 Handle**
 - Simple open and closing

OPTIONAL

As EASY PLUS with electronic control. For perfect documentation as well as fast and standardised test processes – user independent and repeatable.

LEAK-MASTER® EASY features detection of even the smallest leaks without the need for trace gases. The principle is based on one of the oldest and most intuitive methods of leak detection: the bubble test in a water bath. The test package is placed in the chamber filled with water and pressed under water by means of a downholder. With the aid of compressed air and a venturi nozzle, a vacuum is generated in the air space above the water level. The package immersed in water inflates. Testing time takes just a few seconds. At the location of a leak air or filling gas escapes as a visible stream of bubbles. This is particularly important in order to identify at which point in the packaging process an error may have occurred, e. g. if there is a material defect or a sealing problem.

Furthermore, the LEAK-MASTER® EASY can also be used for other applications: So you can also check vacuum packaging using a special set. If the packed products will be shipped by air freight, the LEAK-MASTER® EASY is recommended for altitude simulation test. For ease of checking the stability of a package, it can also be tested in the dry chamber.

Furthermore, optional feature is the electronic control unit (modell EASY PLUS), which accelerates and economises test sequences: via pre-set measuring programs, convenient data management and easy documentation of your measurement results.

› BENEFITS

- Simple and cost-effective
- Visual inspection enables localization of the leak
- Short testing period (< 30 sec.)
- For all flexible and rigid kinds of packs (food-, pharmaceutical-, industrial and other packages)
- No trace gas required in package
- No calibration required
- Simple rigidity test realisable in dry chamber
- Altitude simulation test (air freight)
- Easy to-use intuitive system – no special skills required
- Various chamber sizes available
- Easy installation and start-up
- Low maintenance
- Easy to clean perspex housing
- No vacuum pump necessary
- No electrical connections, operation using compressed air

› OPTIONAL

- Adapter for testing vacuum packaging
- Electronic control unit (PLUS), can also be retrofitted
- Calibrated gauge
- Vacuum stop valve
- Flocculant 50 for longer use of water

Localization of the leak – also suitable for vacuum packages



LEAK-MASTER® EASY by WITT – Bubble-test leak detection – ideal for locating the leak. Cost effective and easy.



› LEAK-MASTER® EASY SERIES 1-5

You have the choice: the LEAK-MASTER® EASY is available in 5 different chamber sizes. You are not sure which size you require? Just send us your packages and we identify the suitable version for your application.

LEAK-MASTER® PRO

Leak detection system for packages containing CO₂



- 1 User interface**
 - Touch-screen
 - Intuitive data and parameter entry
 - No calibration necessary
 - No skilled personnel needed
- 2 Manifold connection options**
 - Potential-free contact to connect a signal-horn, alarm indicator or to stop the system
 - Barcode reader for fast and easy choice of user and product
 - Compressed air connection for optimal ventilation in CO₂-enriched environments
- 3 Viewing point on all chambers**
 - Double safety by visual check
- 4 Ethernet interface (optional WLAN/WiFi) at the rear**
 - Integration into company network
 - Comfortable data administration and analysis
 - Customer oriented quality documentation
- 5 Optimal hygiene by easy cleaning**
 - Chamber: ventilator module can be removed without special tools
 - Box: stainless steel, smooth surface, splash-proof

The functionality of this leak detection system for modified atmosphere packaging is quite simple. Modified atmosphere packages normally contain CO₂ as part of the protective atmosphere – other products produce CO₂ by themselves. The LEAK-MASTER® PRO is using this CO₂ as a trace gas. Packages can be tested for leaks directly after the packaging process. A settable vacuum is produced inside the chamber. Resulting in pressure differences between the tested package and the testing chamber, CO₂ escapes through smallest leaks. The CO₂ concentration within the chamber rises. The highly sensitive sensor reacts and detects even smallest leaks. Using this method ensures that the product remains entirely undamaged and dry after testing. The LEAK-MASTER® PRO administrates the specific settings for up to 1,200 products as well as name, password and barcode for up to 60 users. The test remains user independent and can be easily repeated. The selection of tested products and the user log-on is controlled via touch-screen or by optional barcode reader.

The quality system LEAK-MASTER® PRO checks leak tightness of packages to avoid any quality risks and meets the requirements of the HACCP concept.

With a special WITT control software package the measurement documentation can be integrated into the overall quality system. All results including date, time, product details and user name can additionally be sent to MS-Excel. For data transfer WITT is offering the industrial standard Ethernet. Via this interface the LEAK-MASTER® PRO can be connected to the company network – on demand also wireless by WLAN/WiFi.

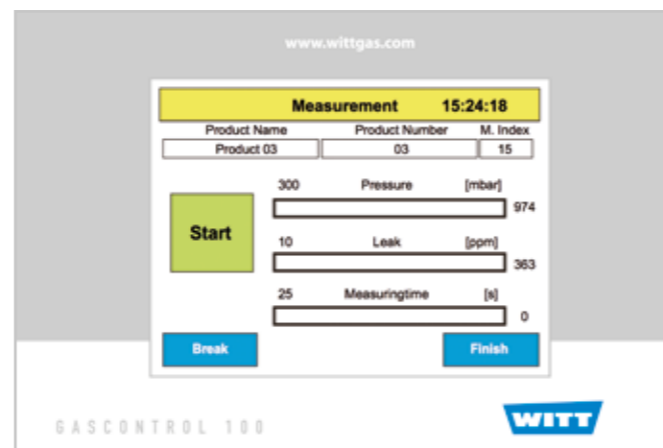
- > **BENEFITS**
 - Finds the smallest of leaks
 - Short testing time by highly sensitive, ultra-fast CO₂ sensor
 - No need for costly helium
 - Fast change of products
 - For flexible and solid packages
 - Intuitive use
 - No calibration required
 - No skilled personnel needed
 - Stainless steel frame
 - Various chamber sizes
 - For sample testing of:
 - Single packages
 - Cartons
 - E2 boxes
- > **OPTIONS**
 - Barcode Reader
 - WLAN/WiFi
 - Flushing air connection

Non-destructive leak testing – highly accurate and fast

LEAK-MASTER® PRO by WITT 5 Leak testing of food packages containing CO₂. Non-destructive, fast and exact.

> USER INTERFACE

- Touch-screen**
 - LC-Display 7"
 - 256 colours
 - Resolution: 800 × 480 Pixel
 - Graphical elements
- Barcode administration**
 - Easy choice of user
 - Fast change of product
- Product data administration**
 - Up to 1,200 products
 - Password protection
- Menu**
 - Multi-lingual
 - Intuitive use
- User administration**
 - Up to 60 users
 - Password protection
- Data memory**
 - Product details (name, item number, barcode)
 - Measure time
 - Result
 - Date and time
 - Name of user
 - Charge



> GAS CONTROL CENTER

- Software for data administration**
- Product and user administration**
 - Parameters (product and user)
 - File administration (MS Excel compatible)
- Measuring data administration**
 - Automatic (periodic) or manual
 - Data transmission to MS Excel
- Multi-device**
 - Data exchange with multiple LEAK-MASTER®



LEAK-MASTER® MAPMAX

Inline micro leak detection system for packages containing CO₂



- 1 Stainless steel frame**
 - Smooth surface, splash-proof
 - Optimal hygiene
- 2 User interface**
 - Touch-screen
 - Intuitive data and parameter entry
 - No skilled personnel needed
- 3 Emergency stop**
- 4 Two synchronised belt conveyors**
 - For placing the package in the measuring chamber and for forwarding to following systems
- 5 Alarm signal**
- 6 Measuring chamber**
- 7 Ethernet interface (optional WLAN/WiFi)**
 - Integration into company network
 - Comfortable data administration and analysis
 - Customer oriented quality documentation
- 8 Manifold connection options**
 - Potential-free contact to connect a signal-horn, alarm indicator or to stop the system
 - Digital contact to control the number of cycles and to control an external reject device

LEAK-MASTER® MAPMAX features non-destructive detection of even the smallest leaks using CO₂ as trace gas – a 100 % testing method connected directly to the packaging process. Thus not a single leaking package gets to the customer. LEAK-MASTER® MAPMAX places the packages or shipping case in the test chamber. A settable vacuum is produced, resulting in pressure differences between the tested package and the testing chamber. CO₂ escapes through smallest leaks and the CO₂ concentration within the chamber rises. The highly sensitive sensor reacts and detects even smallest leaks. The sensor allows a resolution of 1 ppm. After each test cycle the chamber is flushed with air and the tested package is forwarded to following systems. If a leak has been detected, several potential free contacts are available for communication with other equipment which for example could trigger an alarm or a pusher to sort out a faulty package. Important facts for the achievable cycle time are the CO₂ concentration within the package, the leak size, the chamber size and the environmental conditions.

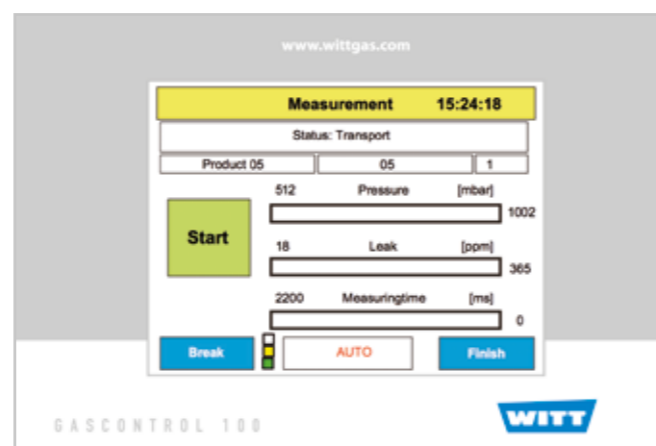
- > **BENEFITS**
 - Non-destructive leak detection and sealed seam testing for flexible and rigid single packages or shipping cases
 - No costly returns – 100 % protection against order or reputation loss
 - Functionality like LEAK-MASTER® PRO – but fully automatic
 - Installation directly into the packaging line
 - Unique worldwide high frequency – up to 15 cycles per minute
 - Suitable for all packages containing CO₂
 - Highly sensitive, very fast CO₂-Sensor
 - No need for costly helium
 - Two standard machines for all customers' requirements as well as customised versions available
- > **OPTIONS**
 - Reject system
 - Barcode Reader
 - WLAN/WiFi

For 100% safety – up to 15 cycles per minute

LEAK-MASTER® MAPMAX by WITT – Inline leak detection system based on CO₂ for up to 15 cycles per minute. Unique worldwide.

> USER INTERFACE

- Menu**
 - Multi-lingual
 - Intuitive use
- User administration**
 - Up to 60 users
 - Password protection
- Data memory**
 - Product details (name, item number, barcode)
 - Measure time
 - Result
 - Date and time
 - Name of user



OUR PRODUCT RANGE

GAS CONTROL EQUIPMENT

- Gas mixing systems
- Gas metering systems
- Gas analysers
- Leak detection systems
- Gas pressure vessels
- Engineering of customised systems

GAS SAFETY EQUIPMENT

- Flashback arrestors
- Non-return valves / check valves
- Quick couplers
- Safety relief valves
- Stainless steel devices
 - Gas filters
- Pressure regulators
- Outlet points
- Lance holders
- Ball valves
- Automatic hose reels
- Test equipment
- Accessories
- Customised safety equipment

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