

# „How much do customer returns cost you?“

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

**Keyword: HACCP**



# LEAK-MASTER®

Leak detection system for packages containing CO<sub>2</sub>



Non-destructive  
leak testing

## 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 CO<sub>2</sub>-enriched environments

## 3 Viewing point on all chambers

- Double safety by visual check

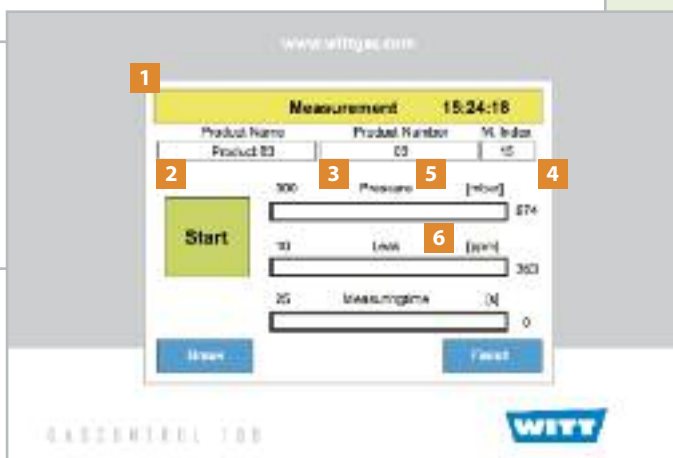
## 4 Ethernet interface (optional WLAN) at the rear

- 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

## USER INTERFACE



## 1 Touch screen

- LC-Display 5.7"
- 256 colours
- Resolution: 320 x 240 Pixel
- Graphical elements

## 2 Barcode administration

- Easy choice of user
- Fast change of product

## 3 Product data administration

- Up to 1,200 products
- Password protection

## 4 Menu

- Multi-lingual
- Intuitive use

## 5 User administration

- Up to 60 users
- Password protection

## 6 Data memory

- Product details (name, item number, barcode)
- Measure time
- Result
- Date and time
- Name of user

## FUNCTIONS

The functionality of this leak detection system for modified atmosphere packaging is quite simple.

Modified atmosphere packages normally contain CO<sub>2</sub> as part of the protective atmosphere – other products produce CO<sub>2</sub> by themselves. The LEAK-MASTER® is using this CO<sub>2</sub> as a trace gas. Packages can be tested for leaks directly after the packaging process. Using this method ensures that the product remains entirely undamaged and dry after testing.

The LEAK-MASTER® administrates the specific settings for up to 1,200 products as well as name, password and barcode for up to 60 users. 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® 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® can be connected to the company network – on demand also wireless by WLAN.

## CONCLUSION

**LEAK-MASTER® by WITT – Leak testing of food packages containing CO<sub>2</sub>. Non-destructive, fast and exact.**

## BENEFITS

- Finds the smallest of leaks
- Highly sensitive, very fast CO<sub>2</sub> 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

## 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

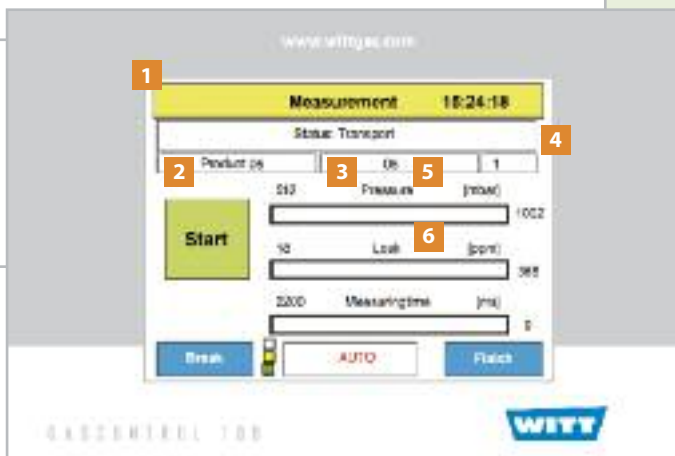
In-line micro leak detection system for packages containing CO<sub>2</sub>



Up to 15 cycles per minute

- 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)**
  - 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

## USER INTERFACE



- 1 Touch screen**
  - LC-Display 5.7"
  - 256 colours
  - Resolution: 320 x 240 Pixel
  - Graphical elements
- 2 Barcode administration**
  - Easy choice of user
  - Fast change of product
- 3 Product data administration**
  - Up to 1,200 products
  - Password protection
- 4 Menu**
  - Multi-lingual
  - Intuitive use
- 5 User administration**
  - Up to 60 users
  - Password protection
- 6 Data memory**
  - Product details (name, item number, barcode)
  - Measure time
  - Result
  - Date and time
  - Name of user

## FUNCTIONS

LEAK-MASTER® MAPMAX features non-destructive detection of even the smallest leaks using CO<sub>2</sub> 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. CO<sub>2</sub> escapes through smallest leaks and the CO<sub>2</sub> concentration within the chamber rises. The highly sensitive sensor reacts and detects even smallest leaks.

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 CO<sub>2</sub> concentration within the package, the leak size and the chamber size.

## CONCLUSION

**LEAK-MASTER® MAPMAX by WITT –  
In-line leak detection system based on CO<sub>2</sub> for up to  
15 cycles per minute. Unique worldwide.**

## 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® – but fully automatic
- Installation directly into the packaging line
- Unique worldwide high frequency – up to 15 cycles per minute
- Suitable for all packages containing CO<sub>2</sub>
- Highly sensitive, very fast CO<sub>2</sub>-Sensor
- No need for costly helium
- Six standard sizes for all customers' requirements as well as customised versions available

### OPTIONS

- Reject system
- Barcode Reader
- WLAN



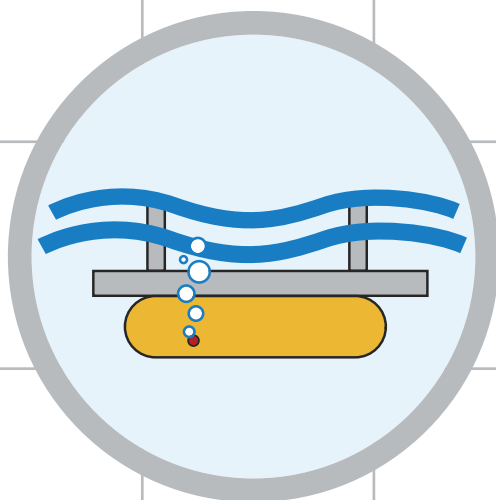
# PACK-VAC

Leak detection system without the need for trace gases



- 1 Perspex housing**
  - Visible operation from all around
  - Robust and easy to clean
  - Different chamber sizes
- 2 Venturi injector**
  - No electrical connections
  - Operation with compressed air
- 3 Pressure regulator**
  - Setting of air pressure
- 4 Water level indication**
- 5 Water drain**
  - Fast change of water
- 6 Lid adjustment**
- 7 Ball valve**
- 8 Pressure gauge**
  - Control of vacuum
- 9 Handle**
  - Simple open and closing

Suitable for vacuum packages



## FUNCTIONS

PACK-VAC features detection of even the smallest leaks without the need for trace gases. The package is placed into the chamber filled with water, the head space above the water level is evacuated using a venturi vacuum (compressed air) system.

The package immersed in water inflates. At the location of a leak air or filling gas escapes as a visible stream of bubbles.

## CONCLUSION

**PACK-VAC by WITT – Leak detection without trace gases also for vacuum packages. Cost effective and easy.**



## BENEFITS

- 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
- 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

### OPTIONS

- Available for vacuum packages
- Available for altitude simulation test (air cargo)

## 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
- Lance holders
- Ball valves
- Automatic hose reels
- Test equipment
- Accessories
- Customised safety equipment



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