

# LEAK DETECTION SYSTEM LEAK-MASTER® MAPMAX



further information on  
[www.leak-master.net](http://www.leak-master.net)

► Video

**Automatic in-line micro-leak detection system for packages based on CO<sub>2</sub>.  
LEAK-MASTER® MAPMAX features non-destructive detection of the smallest leaks without the need of costly helium - directly from the packaging line.**

CO<sub>2</sub> is the most important gas in the packaging of food under modified atmospheres. The LEAK-MASTER® MAPMAX uses this CO<sub>2</sub> as trace gas. That way it is possible to test the packages for leaks directly after the packing process.

The LEAK-MASTER® MAPMAX places the packages or complete shipping cases precisely in the test chamber. If the test sample is leaking, the pressure difference will result in a gas flow from the package into the chamber and the CO<sub>2</sub>-concentration within the chamber rises. The highly sensitive sensor will notice the changes of the CO<sub>2</sub>-concentration and even smallest leaks are easily detected.

After each test cycle (up to 15 cycles per minute) the chamber is ventilated and the test sample is moved on to the following system. If a leak has been detected, several potential free contacts for communication with external systems are available (e.g. alarms and/or pusher).

## Benefits

- short response time
- high operating speed (max. 15 cycles/min.)
- for single packages or complete shipping cases
- various chamber sizes
- for flexible and rigid packs
- no calibration required
- easy-to-use intuitive system – no special skills required
- operator friendly - data and process parameter entry by means of integrated PLC with touch-screen or via remote personal computer
- convenient data administration and evaluation for customer oriented quality documentation
- remote transmission of results via Ethernet
- easy to clean stainless steel housing

**Other models, options and accessories available upon request.**

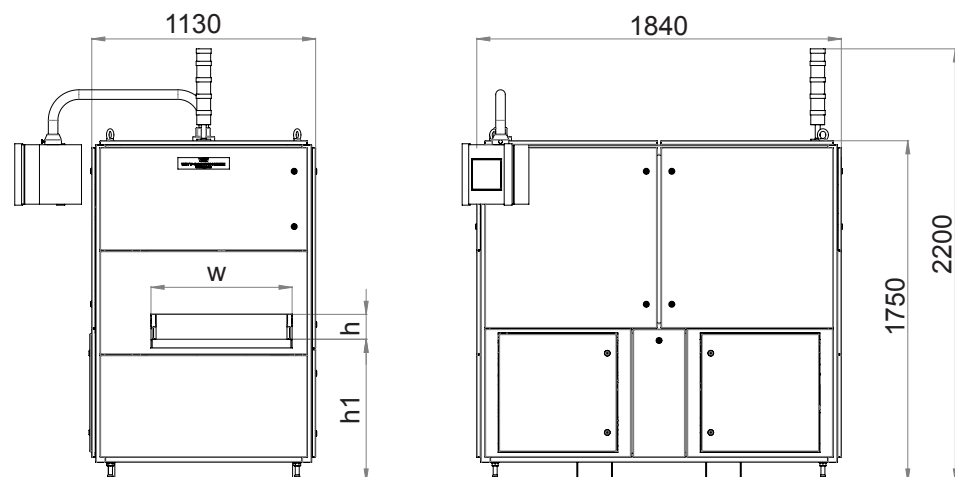
# LEAK DETECTION SYSTEM

## LEAK-MASTER® MAPMAX

<b>Type</b>	LEAK-MASTER® MAPMAX
<b>Drive Mechanism</b>	2 synchronized belt conveyors
<b>Measuring System</b>	infrared sensor for CO <sub>2</sub> (calibration not required)
<b>Measuring range</b>	0 ppm – 5 000 ppm (Resolution: 1 ppm)
<b>Response time</b>	approx. 1 sec.
<b>max. CO<sub>2</sub> concentration in ambient air</b>	2 500 ppm
<b>Leak testing cycle</b>	max. 15 measures/min. depends on leak size, CO <sub>2</sub> -percentage in package and size of chamber
<b>Operating vacuum</b>	up to 100 mbar abs.
<b>Temperature range</b>	5 – 40 °C (41 – 104 °F)
<b>Humidity of ambient air</b>	max. 90% at 20 °C (68 °F) / max. 50% at 40 °C (104 °F)
<b>Alarms</b>	potential free contact; max. 250 V AC or 24 V DC / 2 A
<b>Communication</b>	- data communication via Ethernet - digital output for take-over cycle - digital output for pusher unit
<b>Compressed air connection</b>	1 x 14 mm (1 x 0.6 inch) / 6 – 8 bar
<b>Housing</b>	stainless steel
<b>Weight</b>	approx. 950 kg
<b>Machine dimension (LxWxH) machine type 400, 700</b>	1 840 x 1 130 x 2 200 mm (72.4 x 44.5 x 86.6 inches)
<b>Take-over-height (h1) machine type 400, 700</b>	670 – 850 mm (26.4 – 33.5 inches) higher upon request
<b>Test volume (lxwxh) machine type 400 machine type 700</b>	approx. 600 x 400 x 380 mm (23.6 x 15.7 x 15.0 inches) approx. 600 x 680 x 220 mm (23.6 x 26.8 x 8.7 inches)
<b>Power consumption</b>	400 V - 50 Hz, 3 Ph/N/PE
<b>Approvals</b>	Company certified according to ISO 9001 and ISO 22000 CE-marked according to: - EMC 2014/30/EU - Low Voltage Directive 2014/35/EU - Machines Directive 2006/42/EC

**Caution!**

*This equipment is not suitable for the checking of packaging featuring O<sub>2</sub> content greater than 20.9% (fresh meat, for example).*



dimensions in mm