

LEAK DETECTION SYSTEM

LEAK-MASTER® MAPMAX



further information on
www.leak-master.net

► Video

Automatic in-line micro-leak detection system for packages based on CO₂. LEAK-MASTER® MAPMAX features non-destructive detection of the smallest leaks without the need of costly helium - directly from the packaging line.

CO₂ is the most important gas in the packaging of food under modified atmospheres. The LEAK-MASTER® MAPMAX uses this CO₂ 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 CO₂-concentration within the chamber rises. The highly sensitive sensor will notice the changes of the CO₂-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

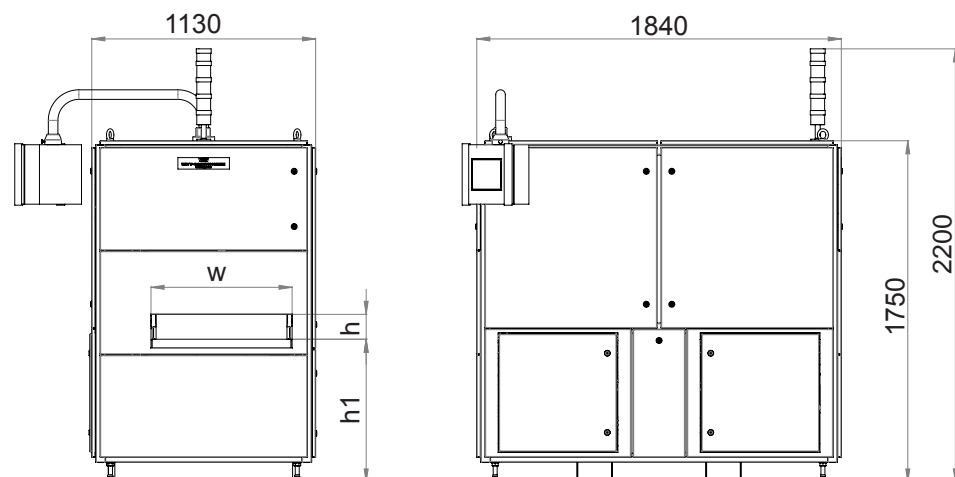
Other models, options and accessories available upon request.

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Type	LEAK-MASTER® MAPMAX
Drive Mechanism	2 synchronized belt conveyors
Measuring System	infrared sensor for CO ₂ (calibration not required)
Measuring range	0 ppm – 5.000 ppm (Resolution: 1 ppm)
Response time	approx. 1 sec.
max. CO₂ concentration in ambient air	2.500 ppm
Leak testing cycle	max. 15 measures/min. depends on leak size, CO ₂ -percentage in package and size of chamber
Operating vacuum	up to 100 mbar abs.
Temperature range	5 – 40 °C (41 – 104 °F)
Humidity of ambient air	max. 90% at 20 °C (68 °F) / max. 50% at 40 °C (104 °F)
Alarms	potential free contact; max. 250 V AC or 24 V DC / 2 A
Communication	- data communication via Ethernet - digital output for take-over cycle - digital output for pusher unit
Compressed air connection	1 x 14 mm (1 x 0.6 inch) / 6 – 8 bar
Housing	stainless steel
Weight	approx. 950 kg
Machine dimension (LxWxH) machine type 400, 700	1840 x 1130 x 2200 mm (72.4 x 44.5 x 86.6 inches)
Take-over-height (h1) machine type 400, 700	670 – 850 mm (26.4 – 33.5 inches) higher upon request
Test volume (lxwxh) machine type 400 machine type 700	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)
Power consumption	400 V - 50 Hz, 3 Ph/N/PE
Approvals	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



dimensions in mm

LM4 - 101/16 subject to change