



Leak detection system

Leak test in a water bath

The Leak-Master® Easy features the detection even of the smallest leaks. After the package is placed into the test chamber filled with water, the head space above the water level is evacuated. This is done with the help of a compressed air operated Venturi nozzle (optionally also with electric vacuum pump). Thus, the package immersed in the water inflates, allowing any leaks and their location to be identified by a stream of bubbles.

Benefits

- Economic and uncomplicated
- Visual inspection allows localization of the leak
- For all flexible and rigid kind of packs (food-, pharmaceutical-, industrial- and other packages)
- Short testing period (< 30 sec.)
- Easy-to-use intuitive system – no special skills required
- Easy installation and start-up
- No trace gas required in package
- Can also be used for altitude simulation
- Optionally also for vacuum packaging
- No calibration required
- Various chamber sizes available
- A vacuum relief valve protects the device against deep vacuum
- Low maintenance
- Durability and easy to clean by acrylic housing
- Standard with compressed air driven Venturi nozzle (without electrical connections)
- Optionally with electrical vacuum pump

Technical Data

Type	Leak Master® Easy
Testing principle	Visual
Calibration	Not required
Vacuum	Max. 200 mbar abs. (approx. -800 mbar to ambient pressure), adjustable; special version till 100 mbar abs.
Vacuum generation	Compressed air powered venturi injector. Option: electrical vacuum pump
Compressed air pressure	Min. 6 bar, max. 8 bar
Connection	G 1/4"
Accessories (incl.)	Hose connection OD 8 mm, hose connection OD 12 mm, adapter G 1/4 M to 1/4" NPT
Housing	Acryl Plexiglas® (Especially robust and special refined against turn yellow)
Approvals	Company certified according to ISO 9001:2015 for food-grade gases according to: Regulation (EC) No 1935/2004

Leak Master® Easy - Accessories



Supplementary set

for Standard Test Method according ASTM F2096, for Detecting Gross Leaks in Packaging by Internal Pressurization (Bubble Test) est).



Calibrated pressure gauge AD100

The calibrated pressure gauge AD100 with DKD/DAkkS certificate gives more security to the customer at the daily use.



Vacuum set

Adapter set for testing vacuum packaged products and products with low gas volumes Easy installation and simple handling.



Vacuum holding valve

With this option the chamber can be blocked after generation of vacuum. Perfect for longer test periods without permanent use of compressed air.



Barcode-Reader

for selection of product names and users via barcode for the electronic control unit PLUS. Fast and save detection of all product- and user data, for manifold barcode-types, protection class IP 65. Ideal for process optimization and optimal quality testing.



Control Unit Plus

Controller for leak detector Leak Master® Easy. In combination with Leak Master® Easy. features non-destructive detection of the smallest leaks without the need of costly helium. Pre-defined measurement programmes, an altitude simulation as well as an user independently quick and continuously working mode characterise this device.

- Minimal response time
- Quick product change
- No calibration required
- Simple to operate via touch-screen
- Easy installation and start-up
- Permanent monitoring of set limit values
- Operator friendly – data and process parameter entry and administration by means of integrated keyboard or remote personal computer
- Perfect documentation by complete user- and product data as well as error logs
- Remote transmission of results via Ethernet or USB stick
- Ethernet connection for network integration
- Measured data storage
- Administration of product names
- User management for measurement personalization
- Individual configurable error codes with identification from type and location of leak
- Ideal for altitude simulation testing
- For retrofitting your existing Leak Master® Easy
- Hygienic and easy to clean splash-proof stainless steel housing

Technical Data

Vacuum	Max. 800 mbar
Temperature (gas/environment)	0 °C to +40 °C
Interfaces	Ethernet (optional WLAN) RS 232 with ASCII-output of date, time, measured value RJ45 Ethernet FTP-Server for profiles, product and user data, software Update. Analog output 4-20 mA or 0-10 V
Housing	stainless steel, IP43
Weight	Approx. 8 kg
Dimensions (HxWxD)	Approx. 110 x 300 x 260 mm
Voltage	230 V AC 50 / 60 Hz / 110 V AC 50 / 60 Hz
Power consumption	230 V AC / 0,12 A
Approvals	Company certified according to ISO 9001:2015 CE marked according to: - EMC 2014/30/EU - Low Voltage Directive 2014/35/EU for food-grade gases according to: - Regulation (EC) No 1935/2004



Electrical vacuum pump

Electrical vacuum pump for Leak Master® Easy

Technical Data

Membrane	HNBR / Stainless steel
Max. operating pressure	0,5 bar rel.
Permissible ambient temperature	+15 °C - +50°C, intermittent +70 °C
Permissible media temperature	+5 °C - +70°C, intermittent +100 °C
Weight	5,2 kg
Dimensions pump housing	approx. 240 x 184 x 472 mm (without connections)
Motor	Capacitor motor
Voltage	100-120 V 200-240 V
Protection class motor	IP 00
Frequency	50 Hz
Power P1	190 W
I max	2,10 A 1,20 A

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Für ASTM Testverfahren geeignet

The Leak Master® Easy Leak Detectors can be used to perform a variety of ASTM test methods for detecting leaks and seal integrity.

ASTM D3078

Standard Test Method for Determination of Leaks in Flexible Packaging by Bubble Emission

ASTM D4169

Standard Practice for Performance Testing of Shipping Containers and Systems

ASTM D4991

Standard Test Method for Leakage Testing of Empty Rigid Containers by Vacuum Method

ASTM D5094

Standard Test Methods for Gross Leakage of Liquids from Containers with Threaded or Lug-Style Closures

ASTM F2096

Standard Test Method for Detecting Gross Leaks in Packaging by Internal Pressurization (Bubble Test) – using our optional supplementary set



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Unsere Kammergrößen für Stichprobenanalysen

	Model	Chamber size approx. in [mm] (H x B x T)	Overall dimension approx. in ca. [mm] (H x B x T)	Weight approx. [kg]
	EASY 0.5	115 x 305 x 195	485 x 440 x 300	15,5
	EASY 1	165 x 305 x 195	535 x 440 x 300	17
	EASY 1.5	145 x 505 x 310	520 x 650 x 420	31,5
	EASY 2	205 x 505 x 310	580 x 650 x 420	35
	EASY 3	275 x 525 x 360	660 x 705 x 485	55
	EASY 4	320 x 625 x 500	900 x 840 x 630	108
	EASY 5	340 x 760 x 500	920 x 970 x 630	120

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