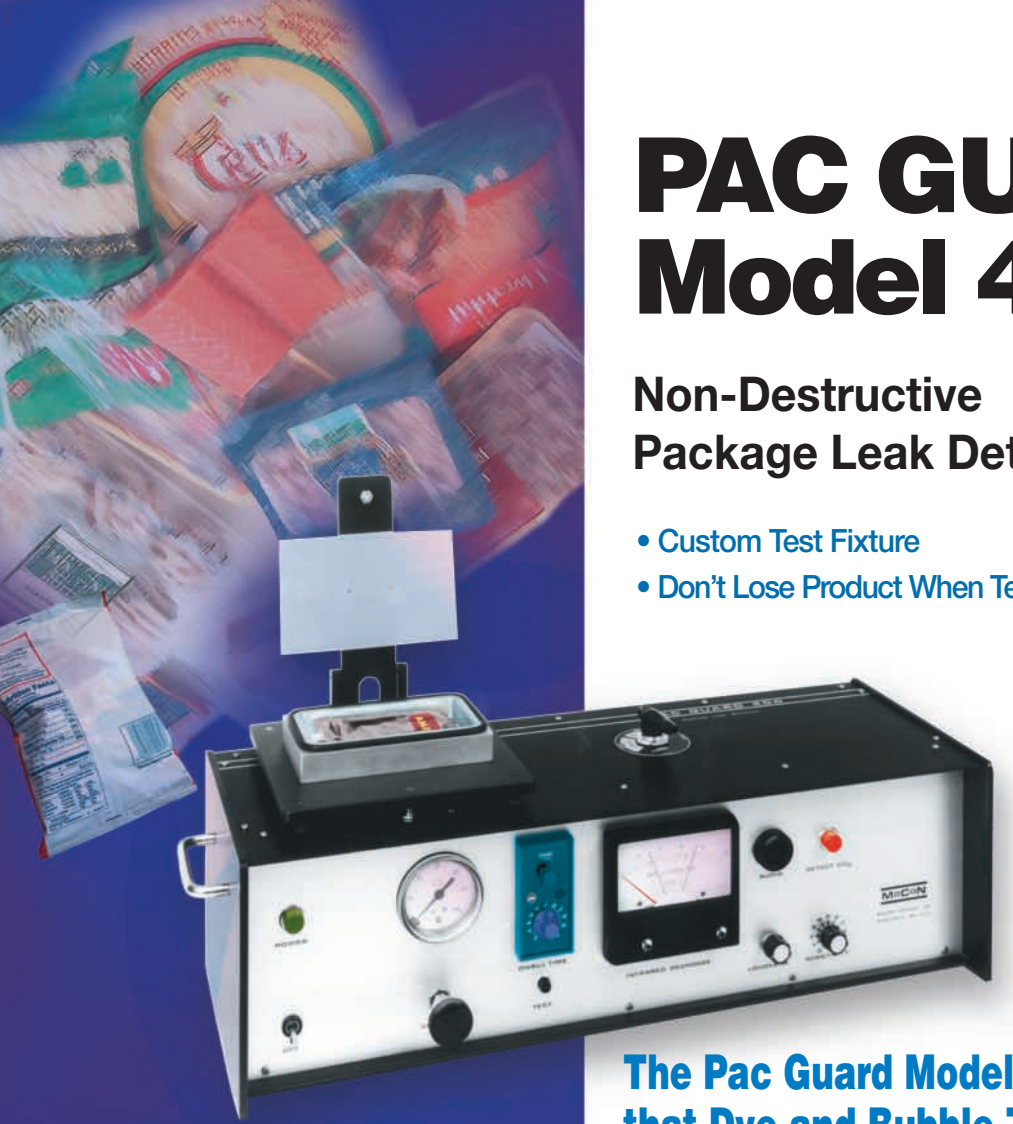

PAC GUARD Model 400

Non-Destructive Package Leak Detection System

- Custom Test Fixture
- Don't Lose Product When Testing Your Packaging

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The Pac Guard Model 400 has the Sensitivity that Dye and Bubble Tests Don't.

The **PAC GUARD Model 400** is a non-destructive leak detection system designed for production line quality control and package development applications. Emphasizing ease of operation, the Pac Guard Model 400 can detect weak heat seals, gross leaks, or small pinholes in finished packages within seconds.

Operation

The Pac Guard Model 400 operates by detecting carbon dioxide as it escapes through pinholes or cracks in the package. In many cases carbon dioxide is present in the headspace as a natural byproduct of the manufacturing process. If not, it may be introduced by flushing just prior to sealing the package, or it may be forced in later by carbon dioxide pressurization. Carbon dioxide is selected as a tracer gas because it is readily available, inexpensive, and FDA approved for food and drug applications.

A test sequence begins by placing the package in the test fixture. A vacuum is quickly drawn on the sample. The resultant pressure differential causes carbon dioxide to escape through holes or cracks in the package. At the end of the pre-set dwell time, room air rushes back into the test fixture, sweeping accumulated carbon dioxide into the infrared sensor and activating the alarm: if the package has a leak. If no alarm sounds, the package is acceptable.

Calibration of the instrument is accomplished by setting the desired dwell time, vacuum, alarm threshold and overall system sensitivity to detect a known amount of carbon dioxide.

Applications

The Pac Guard 400 works best with dry products where some internal headspace exists.

Ideal applications:

- Sterile medical supplies
- Food packaging
- Pharmaceutical packaging

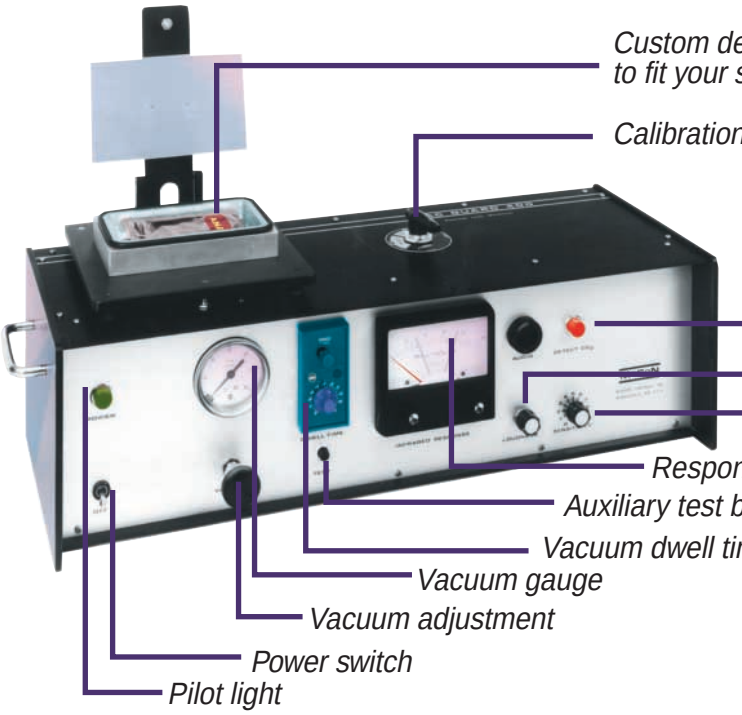
Packages which may be tested:

- Blister packs
- Foil pouches
- Plastic pouches
- Thermoformed cups, bottles and boxes
- Large & Small packages
- CO_2 flushed meat & cheese packages

mocon®
Over 35 Years of Package Testing Experience

Instrument Accuracy is Not Operator Dependent

EASY Operation



Once the front panel controls have been set, many packages can be tested sequentially under the same parameters.

Advantages

- Quickly detects faulty packages
- Non-destructive
- Portable, sets-up easily
- Inexpensive to use
- Does not require hard vacuum
- Rugged infrared sensor contains no moving parts
- Easy to operate
- Capable of ten second test cycles
- Will not overload from gross leaks
- Can detect leak rates smaller than 10^{-3} cc/sec.

Specifications

General
Height — 9" (22.9 cm)
Width — 29" (73.7 cm)
Depth — 10" (25.4 cm)
Weight — 40 lbs. (18.2 kg)

Operating
Detection Sensitivity:
Better than 10^{-3} cc/sec., dependent upon package size, dwell time, vacuum applied, etc.

Test Vacuum:
Adjustable, 2-20 in. Hg. (5-50 cm. Hg.)

Electrical
115 VAC, 60 Hz, 1.8A
All foreign voltages and frequencies available.

Options

Pressure Chamber - Pressurizing system forces carbon dioxide into leaking packages. Includes 2 gallon pressure chamber, pressure gauge, valving, and injection needle. Requires customer supplied commercial carbon dioxide.

Recorder - Strip chart recorder for hard copy data collection.
Regulator Kit - Precision carbon dioxide regulator with fittings necessary for instrument calibration and/or for use

Installation and Extended Warranty - Price includes one full day on-site (in the U.S., Canada, and Puerto Rico) by MOCON field service personnel to set-up, check-out, calibrate and provide operator training. A full one-year warranty on parts and labor (F.O.B. MOCON factory).

Visit our website at www.moconpackageintegrity.com

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