

# MAP Check 3 Vacuum

On-line gas analyser  
for quality assurance  
of Modified  
Atmosphere  
Packages (MAP)



## A win-win for thermoforming and tray sealing lines

Customers want higher quality assurance levels... Management wants higher production rates... Here's pleasing news for both.

The MAP Check 3 Vacuum gas analyser lets you step up — from random quality control checks to on-line quality assurance — and speed up production as well. By measuring gas composition on a continuous basis, it ensures that each and every package is flushed to spec — a big win for your customers. And because testing is carried out automatically, process lines can be run at high speeds without compromising quality — management will thank you too.

Automatic testing with the MAP Check 3 Vacuum isn't just faster and more reliable than manual testing — it's also more efficient. If there's a problem with the gas content, the system notifies the operator immediately — there's no waste of time. And if preset limits are exceeded, the analyser simply stops the process — so there's no waste of products or packaging either.

### Benefits

- Stops the packaging machine if preset gas limits are exceeded
- Measures every packaging cycle
- Continuous process monitoring of gas content
- Reduces labour and waste costs compared to manual testing
- Avoids recalls/repacking by stopping packaging machine if machine exceeds preset limits

### Features

- Oxygen or combined oxygen and carbon dioxide measurement
- Alarms for low or high gas concentrations
- Improved data logging capabilities with USB and Ethernet
- Ability to control the MAP Mix Provectus gas mixer
- Delivered with PC software for LAN based data collection
- Optional measurement of buffer tank gas composition and pressure. User configurable alarms

# HOW DOES IT WORK?

**1:** An individual program can be created on the MAP Check 3 Vacuum for each product to be packaged. The first step is thus to select the correct program to ensure that the correct alarm levels are set. If the MAP Check 3 Vacuum is connected to the MAP Mix Provectus gas mixer then the correct gas mix will also be set.

**2:** When the packaging machine is running the residual oxygen level (and optionally the carbon dioxide level) is measured for every cycle. The MAP Check 3 Vacuum takes the gas sample directly from the sealing die in the machine and gives an average measurement of the gas content in the die.

**3:** If the oxygen or carbon dioxide level is close to the limits the operator will be notified, and if the limits are exceeded the packaging machine will be stopped.

**4:** With optional buffer tank measurement, gas composition in the buffer tank can be checked before packages are flushed, providing even greater control.



*MAP Check 3 Vacuum is an analyser designed for use with thermoforming (TFFS) and tray sealing machines equipped for Modified Atmosphere Packaging. The analyser works by measuring the gas content non-destructively before sealing the packages.*

*TOP: Shown with optional IP45 accessory kit for improved water protection*



Dash-gatec-MAP Check 3 Vacuum-EN-1

## Technical Specifications

Available configurations	MAP Check 3 Vacuum
Oxygen measurement (zirconia sensor)	Standard in all models
Carbon dioxide measurement (dual beam infrared)	Model dependent
Control of MAP Mix Provectus	Yes
Number of test programs (devices with LCD display)	Up to 1,000
Measuring range	0-100%, both O <sub>2</sub> and CO <sub>2</sub>
Resolution	O <sub>2</sub> : ≥10%, 0.1; <10%, 0.01; <1%, 0.001 CO <sub>2</sub> : 0-100%, 0.1
Sensor accuracy O <sub>2</sub> and CO <sub>2</sub> System accuracy depends on die geometry and machine timing	O <sub>2</sub> : ≥0.1%, ±1% of reading; <0.1%, ±0.001% absolute CO <sub>2</sub> : 0-100%, ±1.5% of reading + 0.5% absolute
Heating time	10 min
General standard features	
Models	Available with LCD display or as "Black Box" without display
Connections	2 x RS232C, LAN 10/100 Mbit (Modbus TCP), USB, host for import/export, 24 VDC logic for machine control signals and alarms
Dimensions & weight	192 x 230 x 375 mm (H x W x D), 8.5 - 11.5 kg (depending on model)
Power supply	103-132 / 207-264 VAC (auto ranging), 47-63 Hz
Compliances	 
Accessories (optional)	
Protection kit	IP45 protection (better than NEMA 3S)
Bracket, assembly	2 brackets, 8 screws
Buffer tank measurement	Model dependent

*Specifications subject to change without notice - further specifications are available in the User Guide.*