

# CheckMate

Non-destructive Leak Testing for  
Filled Bottles & Flexible Packaging



# The ALPS CheckMate is a non-destructive, multi-functional leak test solution for filled bottles and flexible packaging

The ALPS CheckMate is a powerful, yet small multi-functional test system that can be used in combination with interchangeable test chambers to test a variety of rigid and flexible packages as well as devices. The system can be utilized to conduct different leak tests including vacuum decay, pressure decay, a vacuum flexible membrane, ramp to proof pressure, ramp to event and occlusion to ensure package integrity of all types of containers including filled bottles, pouches, bags, trays, devices and modified atmosphere packaging (MAP).

The all-in-one device offers the flexibility to switch between test methods and select the

chamber to suit product and specified test requirements. Once the chamber is in place, it is identified automatically and the appropriate method is selected by the machine for product testing. The system is designed to test a wide range of containers in variable sizes for defect types including cracks, channels, gross holes as well as pinholes down to 5µm.

The ALPS CheckMate provides quick, reliable and repeatable results to help customers in Food & Beverage, Diagnostics, Medical Device and Nutraceutical industries ensure compliance with FSMA, GAMP and GMP regulatory requirements.

## Technical Specification

Test type	FlexiScan	Vacuum Decay	Pressure Decay	Ramp to Event	Occlusion
Container	Flexible/ Semi-Flexible packs/ pouches/sachets	Bottles, BFS, medical devices	Any liquid filled bottles	Component/ device and parts	Component/ device and parts
Test Area/Size	250x150mm	N/A	N/A	N/A	N/A
Measurement Range	Down to 12.5µm	Down to 5µm	Down to 5µm	Up to 0,5MPa (72.5psi)	Part dependent
Test Cycle time	Starting from 10 seconds	Starting from 10 seconds	Starting from 10 seconds	Part dependent	Part dependent
Operation	Flexible membrane	Fixed tooling attachable to top of unit or via test port	Fixed tooling attachable to top of unit or via test port	Fixed tooling attachable to top of unit or via test port	Fixed tooling attachable to top of unit or via test port
Construction	Anodised Aluminium and Acrylic – capped ABS top Cover				
User HMI	10" WXGA 1280x800 Pixels with resistive touch screen				
Connectivity	Active directory, network printing, central network storage, custom data MES/OPC connectors available. 3 x USB, ethernet port, external calibrated leak port				
Features	LED status lights, wireless (tooling detection), Flexible reports, non-vacuum pump mode				

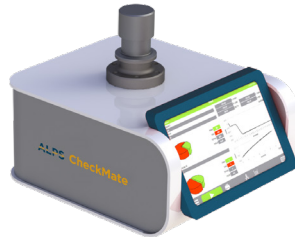
\* Custom sizes available on request

## Features & Benefits



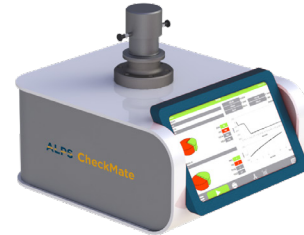
### Flexible Membrane

- Non-destructive seal and leak detection device designed for flexible or semi-flexible packages
- Using hybrid membrane technology, the flexible head utilizes the ASTM F2338-09(2013) test method to perform the leak test
- Can detect all defect types including channel leaks weak seals and all sizes of pin holes
- Tool-less
- Can test packages that contain tablets/capsules/ devices/powders
- Ideal for testing pouches, sachets and bags



### Vacuum Decay

- Non-destructive, deterministic, quantitative test method
- Utilizes vacuum decay to identify leaks and channel leaks as low as 5 $\mu$ m
- Ideal for testing bottles, BFS, medical devices, prefilled syringes, pouches and trays
- Rapid test time as low as 10 seconds.
- Utilizes the ASTM F2338-09(2013) test method to perform the leak test



### Pressure Decay

- Non-destructive, deterministic, quantitative test method
- Utilizes pressure decay to test any liquid filled bottles

### Other testing methods compatible with the ALPS CheckMate include:

- **Ramp to Event** - Destructive, deterministic, quantitative test method using pressure/vacuum to ramp to a failure event. Used for component testing to detect weak welds/seals etc.
- **Ramp to Proof Pressure** - Non-destructive, deterministic, quantitative test method using pressure/ vacuum to ramp to a target pressure.
- **Occlusion** - Non-destructive, deterministic, quantitative test method using pressure drop/time. Typically used to test parts that must remain open to function correctly.



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