

Package Integrity Testing of Flexible Packaging



VeriPac FLEX Systems a PTI technology

VeriPac FLEX Systems are versatile non-destructive package inspection systems designed for pouches and other flexible packaging. VeriPac inspection systems provide a definitive PASS or FAIL as well as quantitative data that correlates to a leak rate. The VeriPac FLEX Systems provide unparalleled sensitivity, reliability and practicality in testing a wide range of flexible package formats and sizes with no change-over of settings or tooling.

To accommodate various package specifications and test sensitivity requirements, VeriPac FLEX Systems are available in several configurations for both the leak test instrument and the test chamber capacity, with solutions to accommodate small format sachets and stick packs, up to very large bulk size pouches and bags.

VeriPac FLEX Systems utilize the ASTM method for vacuum decay leak testing (F2338) listed in ISO 11607 and recognized by the FDA as a consensus standard for package integrity testing. VeriPac inspection systems are the ideal alternative to destructive testing by eliminating subjectivity, and reducing the waste and cost associated with these methods. Vacuum decay leak testing technology has proven to provide a short return on investment when compared to destructive methods, such as the water bath or blue dye leak test. The VeriPac test systems detect critical packaging failures reliably and reveal valuable information on the packaging process.



Integrated Flex Chamber (IFC)

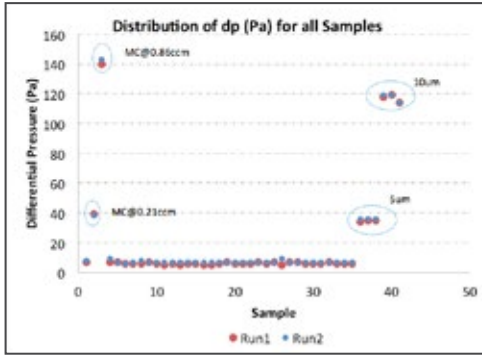
BENEFITS

- Deterministic, quantitative test method
- Non-destructive, non-subjective, no sample preparation
- Test multiple packages in a single test cycle
- Cost effective with rapid return on investment
- Supports sustainable packaging and zero waste initiatives
- Simplifies the inspection and validation process
- Accurate and repeatable results
- ASTM test method and FDA standard
- USP <1207> compliant

INSPECTION CRITERIA

- Measures seal integrity of entire package
- Test sensitivity range from 10 - 20 microns

TECHNOLOGY



The VeriPac tester is connected to the appropriate FLEX chamber based on the size range of the package. The two VeriPac systems paired with the FLEX chamber provide different leak detection capability depending on the application.

The integrated flexible test chamber (IFC) is intended for sachets or stick packs with low headspace. The Drawer Style test chamber (D-Series) features two standard sizes, the Small (D) or Large (DXL) depending upon the package size and specifications. For large package formats and bulk product, custom designs can be manufactured.

The unique difference with VeriPac FLEX systems is how the package is tested. PTI utilizes its flexible membrane that conforms to the package shape and size, eliminating any stress and damage to the film materials. Multiple packages can be tested in a single test cycle.


VERIPAC FLEX SYSTEMS SPECIFICATIONS

	VeriPac 310	VeriPac 425
Application	Non-destructive leak detection for dry filled packages with defect profile typically >20 microns	Non-destructive leak detection for dry filled packages with defect profile typically >10 microns
Package Materials & Combinations	Non-porous materials: foil, plastic, poly, film, aluminum	
Test Configuration	Offline laboratory and Production line applications	
Test System	Absolute vacuum transducer with automated pressure regulator*	Dual transducer PERMA-Vac Technology**
Technology	Absolute Vacuum*	Differential Vacuum Decay**
Recognized Test Method	ASTM F2338-09 (astm.org), referenced in USP <1207>	
Operator Interface	6" Color Touch Screen	10" Color Touch Screen
Test Parameter Storage	Up to 20 packages	
Test Sensitivity	3.4 ccm (approximate hole size down to 20 microns)	0.84 ccm (approximate hole size down to 10 microns)
Test Results/Resolution	<ul style="list-style-type: none"> Definitive Pass/Fail Result Quantitative results in mBar 	<ul style="list-style-type: none"> Definitive Pass/Fail Result Quantitative results in mBar and Pascal
Security Password	Standard	CFR 21 Part 11 Capability
Data Collection	View on touch screen and electronic data collection	
Test Instrument Enclosure	Stainless Steel	
Tester Dimensions/Weight	12" W - 18.5" D - 10" H/30 lbs.	14.5" W x 22" D x 12" H/40 lbs.
Power	100-240 VAC; 50/60 cycles	
Air	90 psi	
Options	Validation Qualification Package (IQ/OQ/PQ) / Microcalibrator Flowmeter	

*U.S. Patents 5,513,516 6,513,366 **U.S. Patent 8,544,315

Test results may vary according to application and package specifications.

TEST CHAMBER SPECIFICATION MATRIX

	Integrated Flex Chamber (IFC)	Small Drawer - D Series	Large Drawer - DXL	Custom*
Applications	Stick packs and sachets	• Pouches, bags and other flexible packaging formats		• Poly peelable chevron pouches
General Package Size	<250 gram	>100 gram	>250 gram	 <p>Mega-Flex</p>
Test Chamber Inner Dimensions	12.25" W x 8.25" D	8" W x 13" D	25" W x 13" D	
Test Drawer Footprint/Weight	34" W x 14.5" D x 10" H / 50 lbs.	17" W x 21-1/2" D / 133 lbs.	34" W x 25-1/2" D / 227 lbs.	

Note: Above specifications are for the standard VeriPac FLEX Series. *Custom test chambers and configurations are available.