



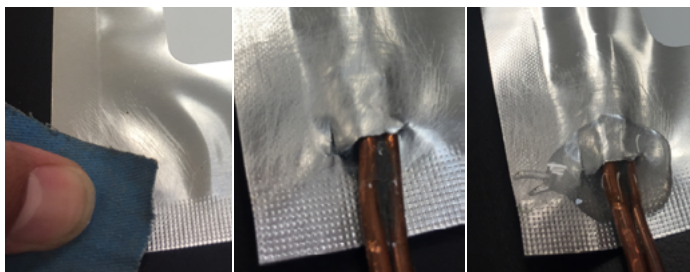
PACKAGE TEST CARTRIDGES: FLEXIBLE POUCHES

Choices for protecting products.

Flexible pouch packaging has become the preferred choice for protecting a wide range of products, from personal care items to food and beverages. Foil structures offer extremely high-barrier properties and are cost-effective due to reduced material waste and ease of transport and storage. With added conveniences such as easy opening and re-closing, shape versatility, puncture resistance and stand-up capability, these packaging materials are growing in popularity.

Historically, pouch package testing has been cumbersome, artistic and subjective. Streamlining the preparation of flexible pouches for permeation testing addresses a significant need for converters and test labs, enhancing both repeatability and accuracy. Increased test throughput enables faster decision-making, expediting the time-to-market for barrier solutions.

Historical method: Abrade the surface, insert tubing then seal with epoxy.



Benefits

The Flexible Pouch Cartridge streamlines sample preparation, making it faster and easier compared to traditional, cumbersome methods. The compression sealing of the test insert enhances repeatability and accuracy, eliminating the need for tools and epoxy in permeation testing. This method also increases the robustness of the system by avoiding the fragility associated with brittle epoxy. For high humidity test conditions, traditional epoxy preparation requires overnight curing, whereas the Flexible Pouch Cartridge allows a pouch sample to be ready for testing within minutes.

- Increased accuracy
- Increased repeatability
- Fast easy sample prep
- Streamlined (removes subjectivity)
- Works for most pouch sizes

Cartridge method: Slide on post, straighten the insert then secure the sealing plate.



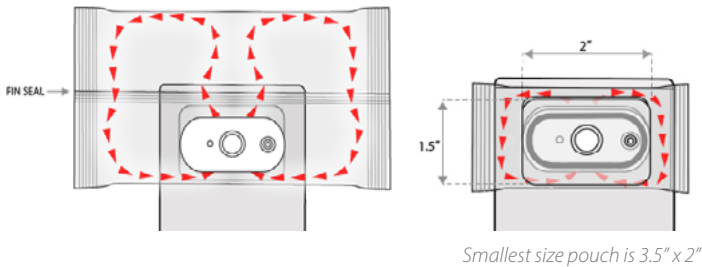
CHOOSING A CARTRIDGE BASED ON APPLICATION NEEDS

Applications

Snack food packaging applications range from granola bars and potato chip bags to fruit drink pouches. Any flexible pouch is suitable if it is less than two liters in volume and large enough to fit the test insert (approximately 3" x 2"). When using this cartridge with an external PackRack®, test conditions may be limited in high temperature and humidified environments (e.g., 60°C/90% RH) when placed inside an environmental chamber. We recommend our customers test under conditions that best simulate their supply chain.



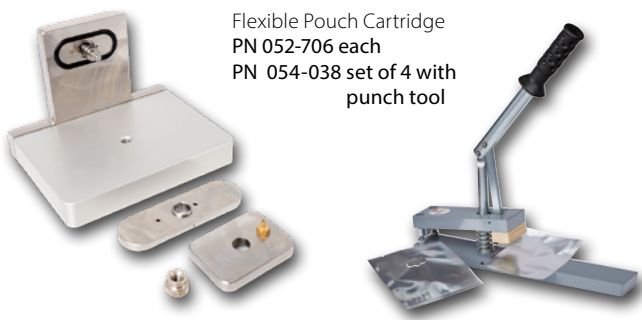
Specialized cartridge enables simpler testing of pouch samples.



Smallest size pouch is 3.5" x 2"

Advice about testing pouches

The Flexible Pouch carrier gas insert measures approximately 2" x 1". Therefore, the flexible pouch should have dimensions of at least 3.5" x 2" to securely accommodate the insert. If the pouch has a fin seal along the back, there must be a minimum area of 3.5" x 1.25" on one side of the fin seal to secure the insert. For pouches made from materials that are not high-barrier structures (e.g., foil or metallized) and readily permeates, it is important to consider the coverage area of the sealing plate ($2 \times 1.5 = 3 \text{ in}^2$) relative to the total surface area of the pouch, as the carrier gas insert and sealing plate will block transmission through the pouch.



Flexible Pouch Cartridge
PN 052-706 each
PN 054-038 set of 4 with
punch tool

Our experts listen to your needs and offer customized solutions.

AMETEK MOCON continually expands our extensive cartridge line based on customer testing requirements to ensure accurate and consistent test results. With over 55 years of industry experience behind the designs, our interchangeable cartridges address general industry challenges as well as specific customer requests.

