Pack integrity leak testing

Is your pack reliably sealed?

Reliable sealed packs are critical to your product quality, prevent contamination, spills and ensure product integrity. Issues including packaging material variations, machine setup and seal area contamination are factors that can affect the packaging seal reliability.

Pack testing using a vacuum pack testing chamber, together with a controlled sampling procedure is critical to assuring your packed product remains safe and the high quality your customers expect.

A common method of package testing, often referred to as a bubble test or immersion leak test (Standard test ASTM D 3078-02), utilizes clear vacuum chambers such as our acrylic chambers and submerges the package under water. As a vacuum is created, air inside the package can flow through any existing leaks in the packaging resulting in a trail of air bubbles rising to the top of the vacuum chamber. The air bubbles therefore give both a visual confirmation of a leak as well as the location of the leak, so you can begin your procedure to rectify the cause of the leak.

Available as rectangular (for larger packs and horizontal viewing) or cylindrical (for smaller and more vertical viewing) chambers, PartsPak design and manufacture to match your application requirements.

Each chamber is supplied with all the necessary vacuum control and optional vacuum pump/venturi devices enabling simple plug and play operation.

Complies with ASTM D 3078-02 - Standard Test Method for Determination of Leaks in Flexible Packaging by Bubble Emission.

Rectangular vacuum chamber

The following sizes are available: Large: 20" W x 14" D x 14" H (pictured) Medium: 18" W x 12" D x 10" Small: 12" W x 10" D x 8" Custom sizes upon request.

- Manufactured from clear cast acrylic sheet and annealed after manufacture
- Rear-hinged lid with gas struts to prevent it opening beyond vertical. Lid is sealed with an 'O' ring set into a machined groove
- Over-centre latches seal the lid when closed
- Packs are submersed and held in place via a perforated submersion plate
- Chamber has a manifold with a pump isolation valve and a PIAB type venturi vacuum generator. A chamber vent valve is fitted in the lid
- Adjustable vacuum regulating valve allows operator to set a maximum vacuum level within the chamber, which is measured using the 63mm diameter vacuum gauge on the lid









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Cylindrical vacuum chamber

- Dimensions: 33cm ID x 35cm O Acrylic Vacuum Cylinder D x 40cm High
- Clear acrylic base bonded to cylinder and fitted with three rubber feet
- Clear acrylic lid with lifting handles
- Nitrile rubber 'L' gasket
- Clear acrylic perforated package submerge plate suspended by threaded studs allowing for adjustment of plate
- 1/4" BSP Drain ball valve
- Lid mounted 63mm dia glycerin filled vacuum dial gauge
- Lid mounted air admittance ball valve
- Side mounted vacuum inlet port with vacuum isolation ball valve
- Side mounted adjustable vacuum regulator, 240 l/min maximum flow
- Volume: 34 litres
- Complies with ASTM D 3078-02 Standard Test Method for Determination of Leaks in Flexible Packaging by Bubble Emission



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Quality first

From your first call to the PartsPak team to the parts that are fitted to your packaging machine, you'll get the best quality parts and service experience, guaranteed.



Expert knowledge

The PartsPak team know packaging machinery: we know your equipment, understand your processes and have proven experience. We're experts in our field, and if there is something we don't know, there is a good chance we'll know someone that does.



On time delivery

We are passionate about meeting your expectations. We know how important it is to deliver when we say we will, so that's what we will do. And if something happens that's out of our control, we'll move mountains to keep our promise. Simple as that.



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