

What is Discovery Mode?

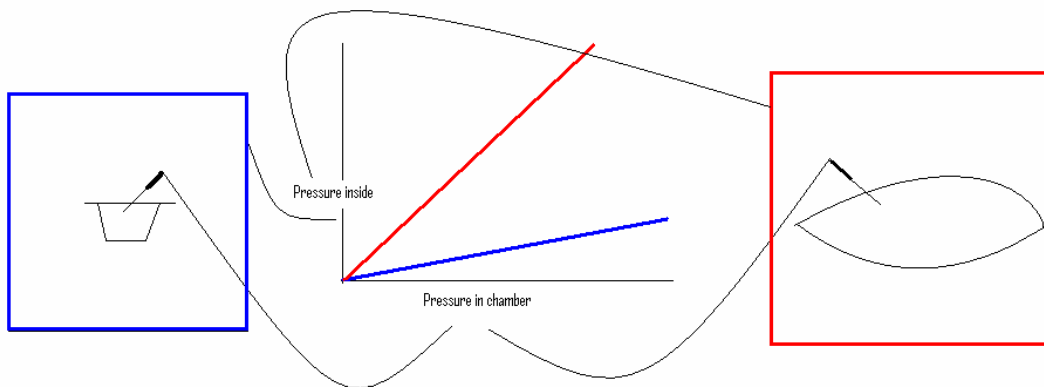
When performing leak detection on products the main question is: at what vacuum do we need to test our samples?

With enough vacuum any flexible packaging will fail, Although there is no hard rule on the vacuum that should be set, it should be a sensible choice.

In order to obtain a differential pressure between the inside of the package and the outside of the package we need to select the 'Discovery Mode'.

A sensible differential pressure to start with is 150 mBar. But how do we know what vacuum to draw to achieve that differential pressure?

It completely depends on the stiffness of the sample and the volume of air enclosed before testing. For more flexible packaging with a large volume of air enclosed, such as bags of chips, you do not need to draw so much vacuum, but for small portions of coffee milk, with a little bit of air enclosed the vacuum is much greater:



The Leak Detection systems from DCI offer this 'Discovery mode' as an option. A pressure sensor is inserted in the packaging through a septum to measure the pressure inside; the pressure in the chamber is measured and the difference of 150 mBar is aimed for. Once the test is completed the DCI Leak Detection system will tell you what the vacuum is that needs to be drawn.