

Advancements in Foam Porosity Measurement

The first version of IDM Instruments' **Foam Porosity Tester F0016** was designed and released in the 1980s, in accordance with global industry standards, and was used to determine the ease with which air passed through a cellular structure, namely foam, by comparing the relationship between pressure and flow when subjected to different foam samples. It used vacuum chambers with manometers and was controllable via a manual dial to fine tune flow. This version was purely analogue and required fine use of the dial and flow tubes to be able to give accurate test results. Due to the purely analog design, it was difficult to achieve accurate yet repeatable test results.



F0016



F0023

After more design and upgrades, the second version **Foam Porosity Tester F0023** was released in late 2001. Once again improving the accuracy of foam porosity testing. This model boasted variable flow ranges, allowing for more ranges of conditions of testing foam porosities.

A huge feature of this model was the addition of an optional printer that allowed for data recording and printout, further increasing reliability and repeatability of tests. This model was truly the jump to digital, using differential pressure transducers instead of manometers, and digital flow sensors instead of analog meters.

IDM Instruments' constant search for increased quality and consistency through quality control and improvement has perfected our designs, leading to our current version in 2013's **Foam Porosity Tester F0031**. Introducing a bright and easy-to-see touchscreen, a 30% smaller footprint compared to previous versions, much faster automatic results, digital manometer with a 0-500 Pa \pm 1% range, variable pressure ranges, different flow range options (0.2-20L/min, 2-200L/min, 5-500L/min), automatic pressure control and RS232 data output. Not only does this version handle regular foams and flexible cellular polyetherane, but also Visco foams (memory foam). Once the pressure has been digitally set on the display, and once the foam porosity tester reaches the set pressure, the rate of airflow is automatically locked in and held on the flow display, automatically completing the test in seconds. Never has it been so easy to test the porosity of foam.



F0031

Enquire more about our Foam Porosity Tester today at idm@idminstruments.com.au or visit www.idminstruments.com.au.