

Filter Media Pore Size Comparison Between Porometry and Glass Bead Challenge Testing

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ABSTRACT

Pore size measurement by the indirect method of porometry can produce varying results dependent on the operator, the sample holder type, and of course, the type of porometer. The typical ISO Test Dust challenge testing procedure, although rigorous, is also dependent on lab protocols as well as its dependence on accurate particle counting of these ISO irregular shaped particles. As a result, a much simpler challenge method has been developed by Whitehouse Scientific that utilizes NIST certified glass beads and a Gilson sonic sifter. This new method can determine a filter media's 97% efficiency (cut-point) via a highly accurate direct challenge with precisely sized spherical particles. This paper will discuss this method and compare the results to porometry values that were obtained on various porometers after they were calibrated and cross-validated.