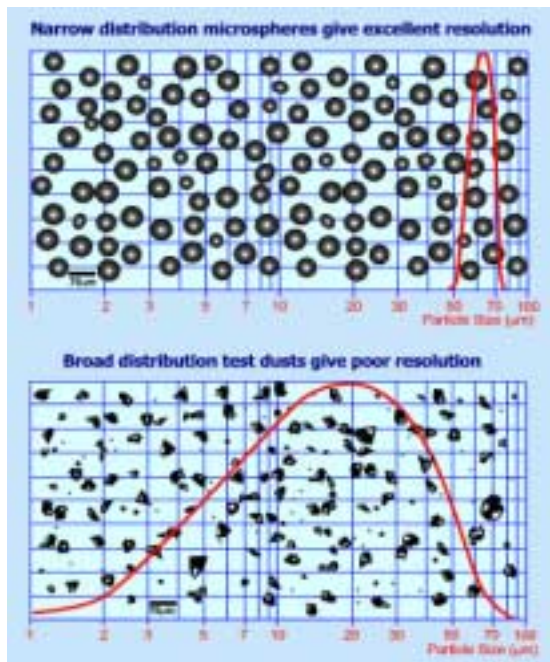


# FILTER CUT POINT DETERMINATION

- the only absolute method

- Unique super-sonic method of calibrating filters
- Wide calibration range - from 5 to over 1000µm
- Filter cut points traceable to NIST and NPL
- Glass microspheres give unambiguous results
- Accurate to 1µm for the smaller filter apertures
- Maximum pore size can easily be verified
- Single-shot bottles give excellent repeatability



## A Novel Sonic Sifting Approach

20 narrow distribution microsphere standards have been produced and certified by Electroformed sieve analysis and microscopy using a NIST reference. A single-shot vial of the appropriate standard is first fluidized on the filter by a computer controlled Sonic sifting device.

A Calibration graph supplied with each standard is then used to relate the percentage passing to the filter cut point. Because the particle size distributions are so narrow, a 10% weight difference passing a filter only equates to a 2µm change in pore size. The graphs below show the construction and use of the filter calibration graphs.

## Certifying the Standards

Each of the filter calibration standards have been analysed 5 times using Electroformed sieves traceable to NIST and NPL. To give confidence in interpolation, the data is supported by microscopy.

## Application

This unique method of filter calibration may be used on all forms of complex woven and non-woven materials that are impossible to calibrate by other means.

### Note:

The efficiency of the sonic sifting device is dependent on the thickness of the filter to be analysed. Although the instrument is capable of analysing down to 5µm, for sizes below 25µm, an ultrasonic suspension method employing ultrasonics may have to be used.

Analysis of the microspheres passing can be used to determine the maximum pore sizes in the filter.

### Prices April 2008

| 1000 – 25 µm<br>Sonic Challenge (dry)  |        |        | 25 - 5 µm<br>Ultrasonic (wet) |        |        |
|--|--------|--------|-------------------------------|--------|--------|
| £ GBP  | € EURO | \$ USD | £ GBP                         | € EURO | \$ USD |
| 150  | 230    | 300    | 200                           | 305    | 405    |
| PORE SIZE DISTRIBUTION ANALYSIS  |        |        |                               |        |        |
| <small>(this test must be performed as an extension to the cut point test so is an additional cost to the cut point price. Please add:</small> |        |        |                               |        |        |
| £200   |        | €305   |                               | \$405  |        |

Discounts available for multiple tests  
Turnaround time less than 1 week

