



Date 31JUL15

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Attn: Helder Pedro

Audit of EN 1822-5 Testing of Custom Filter 20510 HEPA Filter@ 50 CFM

Report Scope: Evaluate test methodology and conformance to BS EN 1822 standard. Evaluate data and determine filter efficiency at H14 performance level for the appropriate particle size.

The test method at Custom Filter LLC <http://www.customfilter.net/> conforms to EN 1822-5 for closed duct testing of High Efficiency Particulate Air filters. The Lasair Particle counters were calibrated on 25JUL15. Particle size is monitored on four channels and resolution is capable of detecting 0.1 through 0.5 microns. The set up procedure of the test duct begins with a correlation of the system at the chosen flow rate, determination of a leak free seal at the filter/duct interface and at the duct atmosphere/ambient air interface. Testing of a filter requires in situ stasis for approximately 3-5 minutes. Data is automatically recorded for each particle size channel and tabulated in a database, labelled by barcode identified on each filter, on the company network drive. Data is backed up systematically at regular intervals throughout the day.

EN1822 requires the most penetrating particle size (MPPS) be determined and used for filter testing. Custom Filter obtained the MPPS data from Hollingsworth and Vose (H&V) <http://www.hollingsworth-vose.com/>, the manufacturer of the HB7633 media used on the 20510 filter assembly. The H&V data was generated on a TSI 3160 <http://www.tsi.com/Automated-Filter-Tester-3160/>. The data from H&V indicates that at 50 CFM the most penetrating particle size for the HB 7633 media is 0.21 micron necessitating the use of the 0.2 micron channel detector as the evaluation threshold for the EN 1822 H14 efficiency designation of 99.995% efficiency. At that flowrate and below the 20510 filter meets the 99.995 (H14) efficiency level at the MPPS requirement. Additional testing by Custom Filter, using the methods observed during this evaluation; apply the testing method rigor and equipment sophistication necessary to meet the BS EN 1822-3 and BS EN 1822-5 standard for evaluating High Efficiency Air Filters.

Verified and attested by

  
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