

# **CityCarb I Specifications**

## 1.0 General

- **1.1** Air filters shall be compact 12" deep adsorber type with combination sorbent/particulate removal media, impact-resistant plastic end caps, plastic vertical support channels, and a nominal 1" header for front or side-access applications.
- **1.2** Sizes shall be as noted on drawings or other supporting materials.
- **1.3** Manufacturer shall provide evidence of facility certification to ISO 9001:2008. Filters shall be Camfil CityCarb I pleated V-Cell Cartridges or equal

## 2.0 Construction

- **2.1** Filter media shall be specifically manufactured for the removal of molecular and particulate contaminants. Sorbent shall be broad spectrum grade of carbon incorporating Rapid Adsorption Dynamics (RAD) designed for the removal of a wide range of odors and VOC's.
- **2.2** Total media area shall be at least 0.038 square feet per rated cfm of filter.
- **2.3** The media shall be formed into uniform pleats using hot-melt separators, assembled into multi-media packs and bonded into a high impact resistant plastic frame to prevent air bypass.

### 3.0 Particulate and Initial Resistance Performance

- **3.1** Initial resistance to airflow shall not exceed 0.6 inches w.g.(+/-10%) at 500 feet per minute velocity.
- 3.2 The filter shall have a Minimum Efficiency Reporting Value of MERV 15 when evaluated in accordance with ASHRAE Standard 52.2 and also it shall have a minimum efficiency rating of MERV 14A when tested per Appendix J of ASHRAE 52.2

### 4.0 Molecular Performance Testing

- **4.1** Filters to be tested by the manufacturer using a protocol in accordance with ASHRAE 145.2. Full details of test protocol to be included with photographic evidence.
- **4.2** A full size, 24" x 24" filter, shall be tested at a flow rate of 2,000 CFM, temperature of 73F (23C), and a relative humidity of 50%.
- **4.3** Gas detectors must have lower level of detection (LLoD) values <1 ppb.
- **4.4** At a minimum the initial removal efficiency and test concentration shall be provided for:
  - 4.4.1 Ozone
  - 4.4.2 Nitrogen dioxide
  - 4.4.3 Sulfur dioxide
  - 4.4.4 Toluene

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