## **Camfil Hi-Flo ES**

## 1.0 General

- **1.1** Air filters shall be high efficiency, extended surface pocket style filters consisting of high loft air laid micro fine glass media, a reinforced ABS plastic header, ABS plastic pocket retainers, and bonding agents to prevent air bypass and ensure leak free performance.
- **1.2** Sizes shall be as noted on drawings or other supporting materials.

## 2.0 Construction

- **2.1** Filter media shall consist of high-density air laid lofted micro fine glass media that is chemically bonded to a synthetic micro mesh media support backing forming a lofted filter blanket.
- **2.2** Individual pockets shall contain a minimum of 40 stitching support points per square foot of media area. The sides and ends of each pocket shall be sewn with a chain-link over lock stitch.
- **2.3** Pockets shall be formed into tapered pleats, supported by controlled media space stitching, to promote uniform airflow across the surface of the media. At any point, the sizes of the upstream and downstream passages shall be proportional to the volume of filtered air. The pockets shall also have a conical configuration to minimize contact with HVAC system components.
- **2.4** Support members shall include an ABS plastic header and ABS plastic pocket retainers. The header shall be joined to the media to prevent air bypass. Individual pocket retainers shall be attached to the header frame with anchor ports allowing for visual confirmation. Bypass between pockets shall be eliminated through a snap-to-seal pocket retainer that shall be an integral part of the two-piece header design. The frame shall form a rigid and durable support assembly.
- **2.5** The air exiting side of the air tunnels include a pocket flange to ensure pocket integrity throughout the life of the filter. A downstream pocket-to-pocket partition shall provide additional pocket separation to ensure full flow through the entire media area.
- **2.6** A filter-to-filter sealing gasket shall be installed on one of the vertical members of the filter header.

## 3.0 Performance

- **3.1** The filter shall have a Minimum Efficiency Reporting Value of MERV (11, 13, 14, 16) when evaluated under the guidelines of ASHRAE Standard 52.2-2012. It shall also have a MERV-A rating of (11, 13, 14, 15) when evaluated under ASHRAE Standard 52.2, Appendix J. It shall have an efficiency of (ePM<sub>10</sub>-70, ePM<sub>1</sub>-60, ePM<sub>1</sub>-70, ePM<sub>1</sub>-80) when evaluated per ISO filter testing standard 16890.
- **3.2** Initial resistance to airflow as listed by the manufacturer on a 22" depth 10-pocket bag shall be shall be (0.24", 0.38", 0.45", 0.62")\* w.g at an airflow of 500 fpm. Additional information shall be as noted on drawings or other supporting materials.
- **3.2** The manufacturer shall warranty that the filter shall be capable of withstanding 10.0" w.g. without failure of the filter.
- 3.3 The filter shall be classified by Underwriters Laboratories as UL 900.
- 3.4 Manufacturer shall provide evidence of facility certification to ISO 9001:2015.

**Supporting Data** - Provide product test reports for each listed efficiency including all details as prescribed in ASHRAE Standards 52.2 and ISO Standard 16890.

Filters shall be Camfil Hi-Flo ES or equal.

Items in parentheses () require selection.