**Camfil Hi-Flo SR**

**1.0 General**

**1.1** ‑ Air filters shall be high-efficiency ASHRAE extended surface pocket style filters consisting of high lofted air laid micro glass, fine fiber media, a reinforced ABS plastic header, with integrated pocket retainers, durable tear-resistant backing, 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 lofted air-laid micro glass, fine fiber media that is chemically bonded to a synthetic micro mesh support backing forming a lofted filter blanket. Synthetic coarse fiber media is unacceptable. The filter media is then to be supported by a high-basis weight, synthetic backing to provide improved pocket durability and tear resistance.

**2.1a** Filter shall have high-strength nylon support backing to create better inflation at lower airflow and resist tearing potential with filter handling. Support backing shall be constructed with 34g/square meter nylon.

**2.2** - Individual pockets shall contain a minimum of 40 stitching support points per square foot of media area. All stitching centers shall be sealed through the use of a foam-based sealant that shall remain pliable throughout the life of the filter. The sides and ends of each pocket shall be sewn with a chain-link overlock stitch which ensures media-to-media contact reducing air bypass.

**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. The pockets shall be formed into a conical configuration by having tapering across both the width of the pocket throughout the depth of the pocket, and across the height of the pocket through the depth of the pocket. This conical design ensures no pocket-to-pocket contact between adjacent pockets and also adjacent filters.

**2.4** – The filter support frame is to be constructed with 2 injection molded ABS plastic halves, that are press fit over the pockets to ensure a leak-free pocket-to-frame seal. Filter frames constructed with more than two assembled frame components, or with clinched or snap-together individual retainers or headers, allow for potential leak points and a loose filter integrity which could result in failure during use.

**3.0 Performance**

**3.1** – Depending on model, the filter shall have a Minimum Efficiency Reporting Value of MERV 13 or 14 when evaluated in accordance with ASHRAE Standard 52.2 and it shall also have a minimum efficiency rating of MERVA 13A or 14A when tested per Appendix J of ASHRAE 52.2.

**3.2** – Initial pressure drop on MERV 13A 24x24x22 model with 10 pockets is 0.47" w.g. and 0.54" w.g. for the MERV 14A model of the same size. Additional information for other sizes and configurations 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 with supporting data from an independent laboratory.

**3.3** – The manufacturer shall provide a full ASHRAE 52.2 test report showing a dust holding capacity (DHC) value greater than 500g, tested at 1968cfm and to 1.5”w.g., using ASHRAE loading dust. Tests with ISO fine-loading dust or DHC values to any other static pressures, or flow rates, are not valid.

**3.4** – The manufacturer shall provide evidence of facility certification to ISO 9001:2015 or the most recent revision.

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