

**AAF VariCel
Specifications**

1.0 GENERAL:

The purpose of this specification is to establish performance criteria and identify physical properties that are pertinent and necessary for proper filter performance. Conformance to all items in the specifications is the responsibility of the bidder.

2.0 PERFORMANCE CHARACTERISTICS

Filters of the size and air flow capacity shall meet the following rated performance specifications based on the ASHRAE 52.2 test method. Pertinent tolerances specified in Section 7.4 of the Air-Conditioning and Refrigeration Institute (ARI) Standard 850-93 shall apply to the performance ratings. All testing is to be conducted on filters with a nominal 24" x 24" face dimension.

Minimum Efficiency Reporting (MERV)	14	13	11
Nominal Size (Width x Height x Depth)	24x24x12	24x24x12	24x24x12
Rated Air Flow Capacity (CFM)	2,000	2,000	2,000
Final Resistance (In W. G.)	1.5	1.5	1.5
Rated Initial Resistance (In W. G.)	0.58	0.56	0.39
Gross Media Area (Sq. Ft. for 24x24)	125	105	105

2.1 The filters shall be UL Classified and Listed by Underwriters' Laboratories, Inc. when tested according to U. L. Standard 900 and CAN 4-S111.

3.0 BID ATTACHMENTS:

One (1) ASHRAE 52.2 test report from an independent, commercially operated test lab. The supplier shall grant permission to the test lab which conducts the ASHRAE tests to verbally verify the test results to the purchaser on request.

4.0 PHYSICAL CHARACTERISTICS:

Each filter shall consist of a pleated media pack contained in galvanized steel cell sides. The filters shall be capable of operating at temperatures up to 350 degrees F.

4.1 Cell Sides and Header

The filter cell sides and header shall be constructed of 30 gauge galvanized steel. The header and cell sides must be of unitized design, where the cell sides are interlocked with the header along the entire perimeter of the filter. To further seal the contact between the header and cell sides, a small piece of tape is applied at each corner of the filter to eliminate any bypass that may occur. The rear flanges of the cell sides should also be crimped to eliminate sharp edges and riveted to eliminate air bypass. A ½" wide bar of 20 gauge steel is riveted to the air leaving side of the filter to add supplemental support to the media pack.

4.2 Media

The media shall be made of micro glass fibers with a water repellent binder. The media shall be a dual density construction, with coarser fibers on the air entering side and finer fibers on the air leaving side.

4.3 Separators

The media shall be pleated using corrugated aluminum separators. The edges of the separators shall be rolled over, to prevent any accidental abrasion or cutting of the media.

4.4 Media Pack

A layer of lofted, high efficiency media is applied between the media pack and the cell sides at the top and bottom of the filter. This provides a sealant for air bypass, as well as a cushion for the media pack during any shipping or handling.

4.5 Optional for MERV 11 and MERV 14 filters - Each filter shall be protected by an antimicrobial registered with the U.S. Environmental Protection Agency for the express purpose of, and technical data sheet approval for, use in air filter products.