



Better Air is Our Business®

AmericanAirFilter®

VariCel® II M

VariCel® II MH

***Extended Surface Mini-Pleat Filters
with Metal Cell Sides and Headers
Available with Antimicrobial***

- ***Metal construction improves performance under the most difficult operating conditions***
- ***Available with (VariCel II MH filter) and without (VariCel II M filter) metal header***
- ***Superior moisture resistance***
- ***Engineered to improve Indoor Air Quality (IAQ)***
- ***True high-efficiency filters (only 4" thick media pack)***
- ***Three efficiencies: MERV 15 (90-95%), MERV 14 (80-85%), MERV 11 (60-65%)***
- ***Available with antimicrobial***

AAF offers two models in its VariCel® II line of high-efficiency, mini-pleat filters with metal cell sides: the VariCel II M and the VariCel II MH. Both filters are constructed using the same high standards for efficiency and performance of the original VariCel II filter. The media is also the same, using microglass paper, with water repellent binder, and the mini-pleat design of the original. The difference is the VariCel II M and MH filters are built with metal cell sides. The VariCel II MH filter includes a metal header and uses AAF's unique interlocking cell sides and header. The VariCel II M filter uses a U-channel frame to fit in side access and front access systems designed to take a 4" deep box style filter.

This combination of unique design and metal cell sides and headers means the VariCel II M and MH filters work well in turbulent operating conditions and in environments where high moisture content is an issue. When combined with the water repellent binder used in the media, the metal construction makes the M and MH filters highly moisture resistant. In addition, the metal header model makes it an easy fit in side access systems.

Available with Antimicrobial

MERV 15 and MERV 11 efficient VariCel II M and MH filters are available with antimicrobial. Antimicrobial acts as a preservative to ensure the integrity of the media throughout the life of the filter. EPA registered and environmentally safe, antimicrobial inhibits the growth of microorganisms documented to affect IAQ.



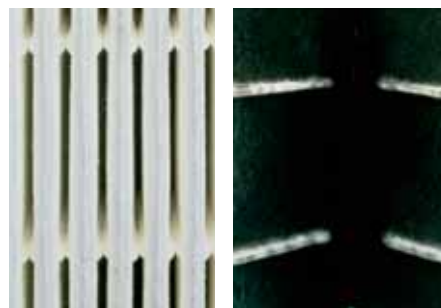
VariCel® II M and MH MERV 14 and higher filters meet efficiency requirements established for LEED® Project Certification.

Unique Combination of High Performance and Cost-Saving Features

- Ideal for the most difficult operating conditions, especially where moisture is an issue
- Microglass paper media with water repellent binder
- Available with antimicrobial in MERV 15 and MERV 11 efficiencies
- Slim line packaging reduces shipping costs and storage space
- VariCel II MH filter header has rolled edges for safe handling
- Easy to install and remove

Slim-Line Design

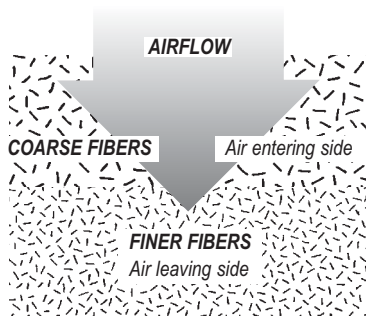
The slim-line design of the VariCel II M and MH filters provides minimum resistance and maximum dust loading capacity, while lowering operating costs. Rows of adhesive beads are used to maintain even pleat spacing and provide maximum airflow with minimal resistance. The consistent pleat spacing of the media allows higher dust holding capacity and full use of the entire depth of the media.



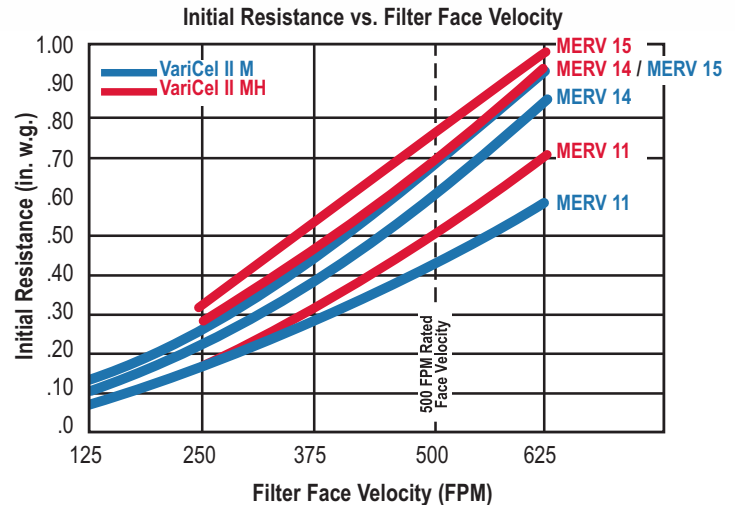
VariCel® II M and VariCel® II MH

Dual-Density Media Increases Dust Holding Capacity

VariCel II M and MH filters use microglass paper media with a water repellent binder. The fibers are formed with dual-density construction, consisting of coarser fibers on the air entering side and finer fibers on the air leaving side. This design allows for collection of particulate throughout the full thickness of the media, substantially increasing dust holding capacity. The media is water repellent and can withstand intermittent exposure to water without affecting performance.



Operating Data



Product Information

⁽²⁾ Nominal Size (Inches) (W x H x D)	⁽²⁾ Actual Size (Inches) (W x H)	Actual Depth (Inches)		⁽³⁾ Rated Airflow Capacity (CFM)	VariCel II M ⁽³⁾ Rated Initial Resistance (in. w.g.)	VariCel II MH ⁽³⁾ Rated Initial Resistance (in. w.g.)	⁽⁴⁾ Recommended Final Resistance (in. w.g.) VariCel II M / MH	VariCel II M Gross Media Area (sq. ft.)	VariCel II MH Gross Media Area (sq. ft.)
⁽³⁾ MERV 15 (90-95%) Average Efficiency - Available With Antimicrobial									
24 x 24 x 4	23 ³ / ₈ x 23 ³ / ₈	3 ³ / ₄	4 ¹ / ₄	2000	.70	.75	1.5	119	111
20 x 25 x 4	19 ³ / ₈ x 24 ³ / ₈	3 ³ / ₄	4 ¹ / ₄	1750	.70	.75	1.5	103	96
20 x 24 x 4	19 ³ / ₈ x 23 ³ / ₈	3 ³ / ₄	4 ¹ / ₄	1650	.70	.75	1.5	99	91
20 x 20 x 4	19 ³ / ₈ x 19 ³ / ₈	3 ³ / ₄	4 ¹ / ₄	1400	.70	.75	1.5	82	75
18 x 24 x 4	17 ³ / ₈ x 23 ³ / ₈	3 ³ / ₄	4 ¹ / ₄	1500	.70	.75	1.5	81	81
16 x 25 x 4	15 ³ / ₈ x 24 ³ / ₈	3 ³ / ₄	4 ¹ / ₄	1400	.70	.75	1.5	82	74
16 x 20 x 4	15 ³ / ₈ x 19 ³ / ₈	3 ³ / ₄	4 ¹ / ₄	1100	.70	.75	1.5	65	58
12 x 24 x 4	11 ³ / ₈ x 23 ³ / ₈	3 ³ / ₄	4 ¹ / ₄	1000	.70	.75	1.5	58	50
⁽³⁾ MERV 14 (80-85%) Average Efficiency									
24 x 24 x 4	23 ³ / ₈ x 23 ³ / ₈	3 ³ / ₄	4 ¹ / ₄	2000	.65	.70	1.5	119	111
20 x 25 x 4	19 ³ / ₈ x 24 ³ / ₈	3 ³ / ₄	4 ¹ / ₄	1750	.65	.70	1.5	103	96
20 x 24 x 4	19 ³ / ₈ x 23 ³ / ₈	3 ³ / ₄	4 ¹ / ₄	1650	.65	.70	1.5	99	91
20 x 20 x 4	19 ³ / ₈ x 19 ³ / ₈	3 ³ / ₄	4 ¹ / ₄	1400	.65	.70	1.5	82	75
18 x 24 x 4	17 ³ / ₈ x 23 ³ / ₈	3 ³ / ₄	4 ¹ / ₄	1500	.65	.70	1.5	81	81
16 x 25 x 4	15 ³ / ₈ x 24 ³ / ₈	3 ³ / ₄	4 ¹ / ₄	1400	.65	.70	1.5	82	74
16 x 20 x 4	15 ³ / ₈ x 19 ³ / ₈	3 ³ / ₄	4 ¹ / ₄	1100	.65	.70	1.5	65	58
12 x 24 x 4	11 ³ / ₈ x 23 ³ / ₈	3 ³ / ₄	4 ¹ / ₄	1000	.65	.70	1.5	58	50
⁽³⁾ MERV 11 (60-65%) Average Efficiency - Available With Antimicrobial									
24 x 24 x 4	23 ³ / ₈ x 23 ³ / ₈	3 ³ / ₄	4 ¹ / ₄	2000	.45	.50	1.5	119	111
20 x 25 x 4	19 ³ / ₈ x 24 ³ / ₈	3 ³ / ₄	4 ¹ / ₄	1750	.45	.50	1.5	103	96
20 x 24 x 4	19 ³ / ₈ x 23 ³ / ₈	3 ³ / ₄	4 ¹ / ₄	1650	.45	.50	1.5	99	91
20 x 20 x 4	19 ³ / ₈ x 19 ³ / ₈	3 ³ / ₄	4 ¹ / ₄	1400	.45	.50	1.5	82	75
18 x 24 x 4	17 ³ / ₈ x 23 ³ / ₈	3 ³ / ₄	4 ¹ / ₄	1500	.45	.50	1.5	81	81
16 x 25 x 4	15 ³ / ₈ x 24 ³ / ₈	3 ³ / ₄	4 ¹ / ₄	1400	.45	.50	1.5	82	74
16 x 20 x 4	15 ³ / ₈ x 19 ³ / ₈	3 ³ / ₄	4 ¹ / ₄	1100	.45	.50	1.5	65	58
12 x 24 x 4	11 ³ / ₈ x 23 ³ / ₈	3 ³ / ₄	4 ¹ / ₄	1000	.45	.50	1.5	58	50

(1) Filters can be operated up to 125% of rated face velocity.

(2) Width and height dimensions are interchangeable. VariCel II M and MH filters may be installed with the pleats either vertical or horizontal.

(3) All performance data based on ASHRAE 52.2. Comparable ASHRAE 52.1 atmospheric dust spot efficiency shown in parenthesis. Performance tolerances conform to Section 7.4 of ARI Standard 850-93.

For maximum service life, VariCel II filters should always be operated with a prefilter.

(4) The final operating resistance shown is typical of systems currently in operation. Filters can be operated to a higher or lower final resistance without materially affecting filter efficiency; however, dust holding capacity will be reduced if the filters are changed at a lower final resistance.

(5) VariCel II M and MH filters are packed two per carton.

Underwriters Laboratories Classification: All VariCel II M and MH filters are classified UL Class 2. Testing was performed according to UL Standard 900.

Continuous Operating Temperature Limits: 150°F (66°C)

AAF Green® is a registered trademark of AAF-McQuay Inc. in the U.S.