



AmericanAirFilter®

VariCel® V

*High Capacity Extended Surface
Mini-Pleat Filters*

VariCel® V with Antimicrobial

*IAQ Engineered Media Treated
with Antimicrobial*

Better Air is Our Business® **AAF**
INTERNATIONAL

VariCel® V and VariCel® V with Antimicrobial

High Capacity Extended Surface Mini-Pleat Filters

- Available in four efficiencies: **MERV 15**, **MERV 14 (95%)**, **MERV 13 (80%)**, and **MERV 11 (70%)**
- **MERV 15 and MERV 14 models available with antimicrobial**
- **High capacity operation up to 750 FPM**
- **Ideal for difficult operating conditions**
 - High velocity
 - Variable air volume
 - Turbulent airflow
 - Repeated fan shutdown
 - High humidity
 - Intermittent exposure to water such as seacoast installations
- **Ideal for retrofitting existing front and side access systems to meet higher IAQ standards**



VariCel® V MERV 13 and higher filters meet efficiency requirements established for LEED® Project Certification.

VariCel® V's multiple mini-pleat media packs, assembled into a series of V-banks, permit substantially more media to be contained in the filter — up to 40% more than standard rigid cartridge filters. Maximum effective media area provides greater airflow capacity, low resistance, high dust holding capacity, and unusually long service life.



(Rear view of VariCel V filter) The V-bank configuration provides greater airflow capacity and longer service life.

Engineered for IAQ Using Antimicrobial

VariCel V filters with antimicrobial are designed specifically to improve Indoor Air Quality (IAQ). Air filters are designed to trap and concentrate particulate air contaminants including viable fungal and bacterial spores. The presence of antimicrobial in the filter media is intended to preserve the integrity of the media throughout the useful life of the filter. Antimicrobial preservatives are not meant to increase the efficiency of the filter, nor to kill microorganisms “on the fly” as they pass through a filter. Antimicrobial is EPA registered and environmentally safe.

VariCel V - MERV 15

The VariCel V - MERV 15 offers 50% less penetration of 0.3µm to 1.0µm particles than a MERV 14 (90-95% efficient) filter. Best of all, this increase in efficiency comes with a minimal increase in resistance. That means you can place it in any system currently using 90% filters, if the system can accommodate the V-bank design. For maximum improvement of IAQ, you can combine this filter with the benefits of antimicrobial.

The VariCel V - MERV 15 is tested in accordance with ASHRAE Test Standard 52.2. This test standard measures the minimum composite efficiency the filter will provide during its useful life.



Minimum pleat spacing permits maximum media area, providing low resistance and high dust holding capacity.

Designed for High Performance

Mini-Pleat Media Packs Provide Minimum Resistance

Separators made from continuous beads of low profile, thermoplastic material create media packs with minimum spacing between pleats. Minimum spacing permits a large amount of media to be built into the filters for optimal airflow with low resistance and high dust holding capacity.

Light-Weight Construction Simplifies Handling

Plastic and aluminum structural components result in lighter weight, though there is a large amount of media area. The light-weight, rigid cartridge design makes VariCel V easy to install, remove, and transport.

Rigid Construction Maintains Media Pack Integrity

The continuous bead adhesive separators form the pleat packs into totally rigid blocks that withstand high velocity and turbulent airflow without pack shifting or pleat deformation. Each pleat pack is bonded inside the filter to increase rigidity and prevent bypass leakage.

Rust Free Components

The plastic and aluminum components produce no rust that could flake off and blow downstream.

Water Repellent Media

Filter efficiency is unaffected by moisture and does not allow water to penetrate through it. Wet media will cause a temporary rise in resistance which quickly returns to normal as soon as the moisture evaporates. VariCel V filters are the ideal choice for installation in humid areas or where moisture is often present

Double Header Model for Side Access Installations

For installations requiring a box style configuration, a double header model is available. Use this optional design for:

- Side access installations with a 12" wide track
- Reverse flow installations where the filter protrudes out of the holding frame in the upstream direction

Fully Incinerable — Meets Disposal Requirements

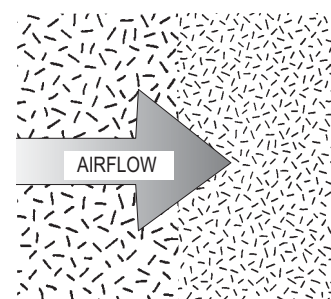
The VariCel V is totally incinerable, and is approved for incineration by GTS Duratek.

Dual Density Media Reduces Operating Costs

VariCel V media is manufactured with two layers of microglass paper fibers: coarser fibers on the air entering side and finer fibers on the air leaving side.

Lowest Average Resistance Over the Life of the Filter

Competitive filters offer increased quantities of surface loading media that may result in a lower initial resistance. However, the lowest initial resistance is not necessarily the best value. VariCel V filters provide the right combination of V-bank design, dual density media, and media pack depth.



COARSE FIBERS Air entering side
FINER FIBERS Air leaving side

Our VariCel V design results in the lowest average resistance to airflow and highest dust holding capacity when measured over the life of the filter.



Header on the end panels allows installation in side access or reverse flow installations.

VariCel® V and VariCel® V with Antimicrobial

Product Information - Performance Data

Rated Filter Face Velocity (FPM)	Nominal Size (Inches) (WxHxD)	Actual Size (Inches) (WxHxD)	Rated Airflow Capacity (CFM)			Rated Initial Resistance (in. w.g.)			Recommended Final Res. (in. w.g.)	Gross Media (Sq. Ft.)
			Standard	Medium	High	Standard	Medium	High		
MERV 15 - Available with Antimicrobial										
500/625	24 x 24 x 12	23 ^{3/8} x 23 ^{3/8} x 11 ^{1/2}	2000	2500	—	.52	.73	.93	2.0	175
	24 x 20 x 12	23 ^{3/8} x 19 ^{3/8} x 11 ^{1/2}	1675	2100	—	.52	.73	.93	2.0	140
	24 x 12 x 12	23 ^{3/8} x 11 ^{3/8} x 11 ^{1/2}	1000	1250	—	.52	.73	.93	2.0	77
MERV 14 (95% Average Efficiency) - Available with Antimicrobial										
500/625/750	24 x 24 x 12	23 ^{3/8} x 23 ^{3/8} x 11 ^{1/2}	2000	2500	3000	.49	.69	.89	2.0	175
	24 x 20 x 12	23 ^{3/8} x 19 ^{3/8} x 11 ^{1/2}	1675	2100	2500	.49	.69	.89	2.0	140
	24 x 12 x 12	23 ^{3/8} x 11 ^{3/8} x 11 ^{1/2}	1000	1250	1500	.49	.69	.89	2.0	77
MERV 13 (80% Average Efficiency)										
500/625/750	24 x 24 x 12	23 ^{3/8} x 23 ^{3/8} x 11 ^{1/2}	2000	2500	3000	.36	.51	.75	2.0	175
	24 x 20 x 12	23 ^{3/8} x 19 ^{3/8} x 11 ^{1/2}	1675	2100	2500	.36	.51	.75	2.0	140
	24 x 12 x 12	23 ^{3/8} x 11 ^{3/8} x 11 ^{1/2}	1000	1250	1500	.36	.51	.75	2.0	77
MERV 11 (70% Average Efficiency)										
500/625/750	24 x 24 x 12	23 ^{3/8} x 23 ^{3/8} x 11 ^{1/2}	2000	2500	3000	.29	.44	.63	2.0	175
	24 x 20 x 12	23 ^{3/8} x 19 ^{3/8} x 11 ^{1/2}	1675	2100	2500	.29	.44	.63	2.0	140
	24 x 12 x 12	23 ^{3/8} x 11 ^{3/8} x 11 ^{1/2}	1000	1250	1500	.29	.44	.63	2.0	77

Width and height dimensions are interchangeable. VariCel V filters may be installed with the pleats either vertical or horizontal. All performance data is based on ASHRAE 52.2-2007 test method. Performance tolerances conform to Section 7.4 of ARI Standard 850-93.

VariCel V filters are UL Class 2. Testing performed in accordance with UL Standard 900 and CAN 4-S111.

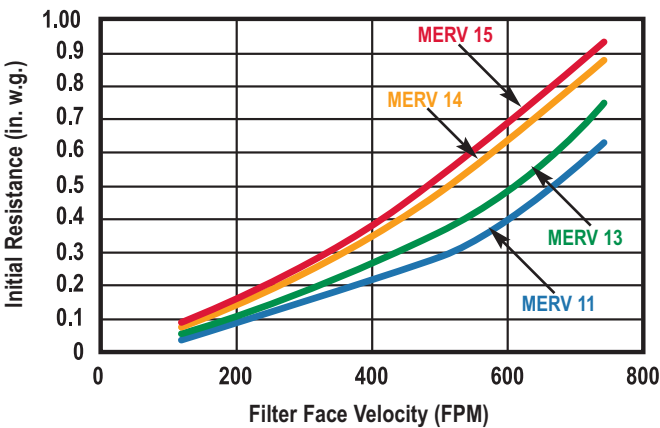
VariCel V filters are designed for continuous operating temperatures up to 175°F (70°C).

Burst Pressure: 12" w.g.+, based on ASHRAE test 7113.

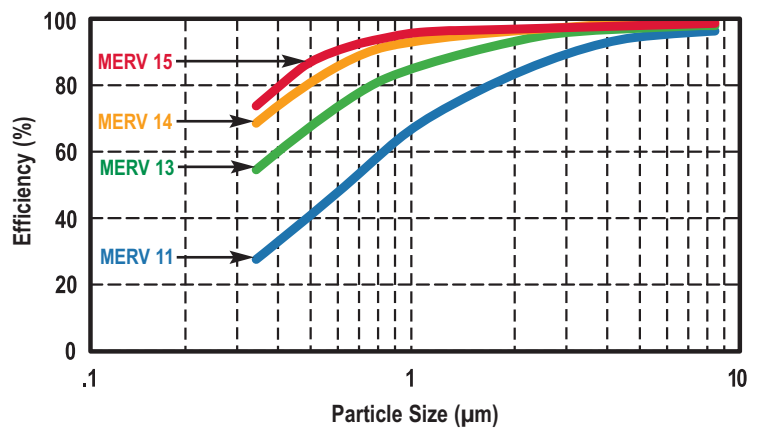
Metric Conversion Table

1.0 in. = 2.54 cm
 1 CFM = 1.7 m³/h
 1 ft² = 0.093 m²
 1.0 in. w.g. = 249 Pa
 1 FPM = .005 m/s

Initial Resistance vs. Filter Face Velocity



Efficiency by Particle Size



Tested in accordance with the ASHRAE 52.2 test method. This chart shows the minimum efficiency the filter will provide throughout its service life.



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AAF has a policy of continuous product research and improvement and reserves the right to change design and specifications without notice.

ISO Certified 9001:2000

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