

BioCel® VXL

HIGH-EFFICIENCY EXTENDED SURFACE FILTERS

- MERV 16 (ASHRAE Standard 52.2); H10 (EN1882)
- Low initial pressure drop of .60 in. w.g. @ 500 FPM
- 200 square feet of media area
- High-impact polystyrene (HIPS) cell sides
- Fully incinerable

The BioCel VXL filter is the latest addition to the AAF BioCel line. BioCel filters were designed primarily to remove airborne biological contaminants in hospital critical areas and food and pharmaceutical processing plants. BioCel filters are engineered to meet the exacting requirements of precision manufacturing operation and laboratories where very high efficiency filtration of fine particulate matter is essential. BioCel filters fill the gap between ASHRAE grade high efficiency filters and ultra-high efficiency HEPA filters.

BioCel® VXL—Advancing High Efficiency Filtration

BioCel VXL filters provide near HEPA-level filtration efficiency with a much lower initial pressure drop than traditional HEPA filters. In addition, the media pack is enclosed in sturdy, lightweight cell sides constructed from High Impact Polystyrene (HIPS) and Acrylonitrile Butadiene Styrene (ABS). The V-bank BioCel filter weighs significantly less and is much easier to handle and install when compared to traditional 12"-deep, box-style ASHRAE and HEPA grade filters with metal cell sides. Easier handling translates into time and cost savings during installation and removal.

BioCel VXL filters offer 99.99% average efficiency on 1.0 μ to 5.0 μ particles, which encompasses the sizes of most bacteria harmful to human health. It is 97.9% efficient on 0.3 μ particles. With an initial pressure drop of .60 in. w.g., this extremely high efficiency filter has less than one-half the resistance of a HEPA and is comparable to many MERV 14 extended surface, box-style filters.

BioCel® VXL ULTRA with Antimicrobial

BioCel VXL ULTRA filters with antimicrobial are designed specifically to improve Indoor Air Quality (IAQ). The antimicrobial traps and concentrates particulate air contaminants while preserving the integrity of the filter media. 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.

Construction

AAF has invested in manufacturing technology that improves media pack construction and allows for more consistent pleating. Thermoplastic gluebead separators maintain uniform spacing between pleats to allow optimal flow of air into and through the filter. This ensures performance and dust holding capacity, which maximizes service life.

The cell sides are lightweight and rugged, and resist damage during shipping, handling, and operation. No metal is used in the BioCel VXL filter, so it is therefore fully incinerable.



BioCel® VXL Filters

Applications

BioCel VXL filters are ideal for any application where a very high level of efficiency is necessary, but the existing air handling system cannot accommodate HEPA filters. The BioCel VXL filter can be used without incurring the cost of new framing or increasing fan capacity, as is necessary when HEPA filters are installed. It is ideal for use in healthcare settings and pharmaceutical manufacturing facilities. It is an excellent choice to improve protection against airborne biological threats to people, processes, and systems.

Product Information – Standard Sizes

Nominal Sizes (Inches) (W x H x D)	Actual Sizes (Inches) (W x H x D)	Rated Airflow Capacity (SCFM)		Media Area (sq. ft.)
		Low	High	
24 x 12 x 12	23 $\frac{3}{8}$ x 11 $\frac{1}{8}$ x 11 $\frac{1}{2}$	500	1,000	88
24 x 20 x 12	23 $\frac{3}{8}$ x 19 $\frac{3}{8}$ x 11 $\frac{1}{2}$	825	1,650	161
24 x 24 x 12	23 $\frac{3}{8}$ x 23 $\frac{3}{8}$ x 11 $\frac{1}{2}$	1,000	2,000	200

Specifications

Maximum Operating Temperature
176°F/80°C

Media
Ultra-fine microglass paper formed into pleats.

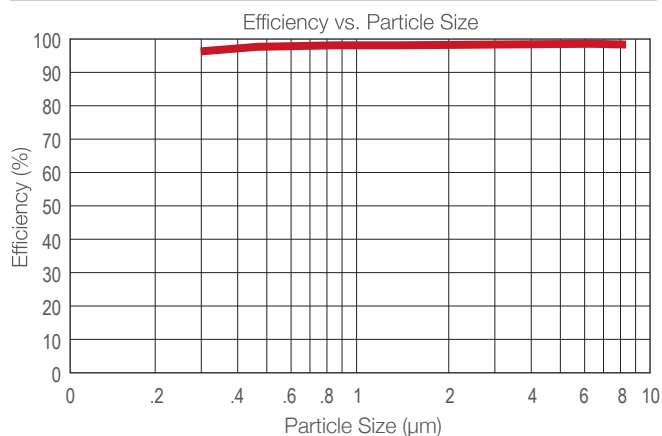
Cell Sides
The molded end panels are made of HIPS. The extruded vertical components are made of ABS.

Separators

Beads of low profile thermoplastic material.

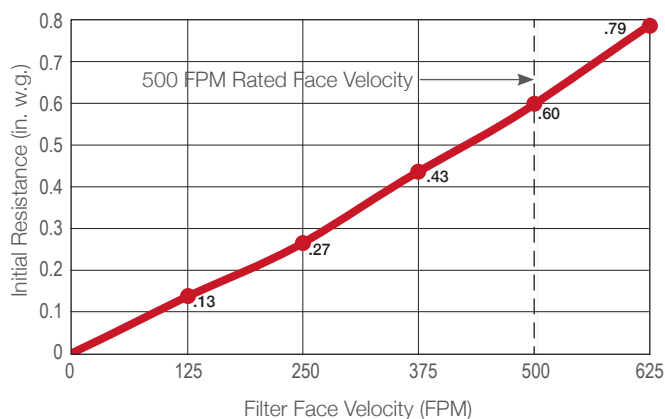
Performance Data

Composite Minimum Efficiency Curve



Tested in accordance with ASHRAE Standard 52.2.

Initial Resistance vs. Filter Face Velocity



Recommended final resistance for all BioCel® VXL filters is 1.5 in. w.g.

BioCel® is a registered trademark of AAF in the U.S. and other countries.



9920 Corporate Campus Drive, Suite 2200, Louisville, KY 40223-5690
888.223.2003 Fax 888.223.6500 | aafintl.com

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

©2023 AAF International and its affiliated companies.

ISO Certified Firm

AFP-1-118F 12/23