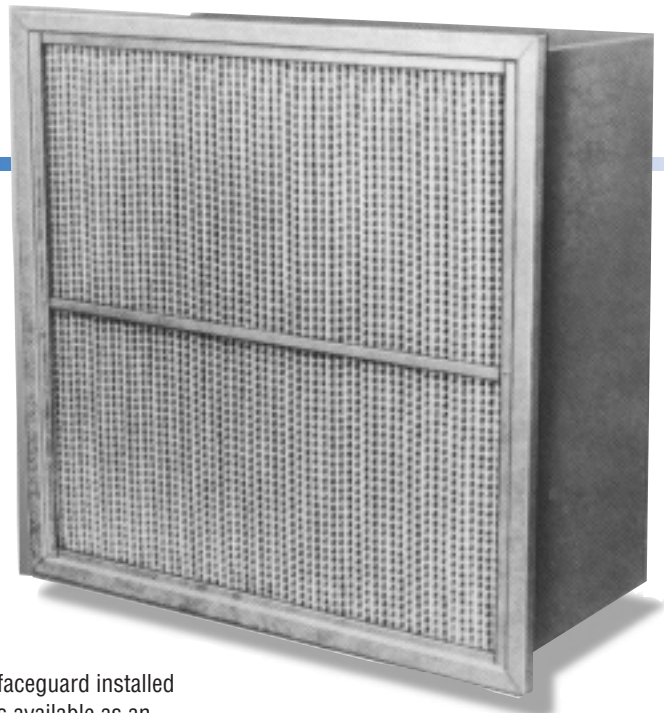


BioCel® I

High Efficiency Extended Surface Air Filter

The BioCel® I filter was designed primarily to remove airborne biological contaminants in hospital critical areas and food and pharmaceutical processing plants. It has also been engineered to meet the exacting requirements of precision manufacturing operations and laboratories where very high efficiency filtration of fine particulate matter is necessary.



HIGH EFFICIENCY - LOW RESISTANCE

The air cleaning efficiency of the BioCel I is significantly higher than that of 90-95% ASHRAE efficiency filters. BioCel I exceeds the maximum efficiency of 98% which can be measured by ASHRAE 52.1 test method.

Rated at 95% by the DOP test method (0.3 micrometer particles) and MERV 16 by ASHRAE standard 52.2, BioCel I has the advantage of much lower pressure drop than a typical HEPA filter (0.4" versus 1.0" wg at 250 fpm). BioCel I fills the gap between ASHRAE grade high efficiency filters and ultra-high efficiency HEPAs at half the weight and pressure drop.

This compact, lightweight filter will withstand operating temperatures to 350°F, if recommended final resistance is not exceeded.

To maximize filter life, use BioCel I with high quality AAF prefilters.

Construction

BioCel I filters consist of a pleated media pack enclosed in a galvanized steel frame assembly. The media is made of ultra-fine fiberglass formed into a series of pleats. Corrugated aluminum separators maintain uniform spacing between each pleat to allow unrestricted airflow through the filter. Bar braces are installed on both sides of the filter for extra reinforcement of the media pack. A

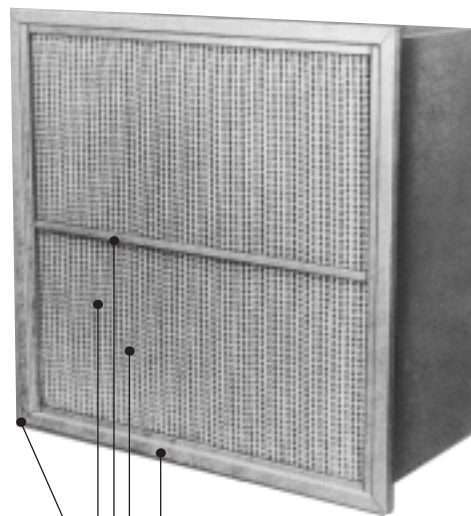
flattened, expanded metal faceguard installed on both sides of the filter is available as an option.

BioCel I filters have a single piece galvanized steel header on the air entering side that is interlocked to the cell sides in a patented fashion that prevents leakage and forms a totally rigid construction.

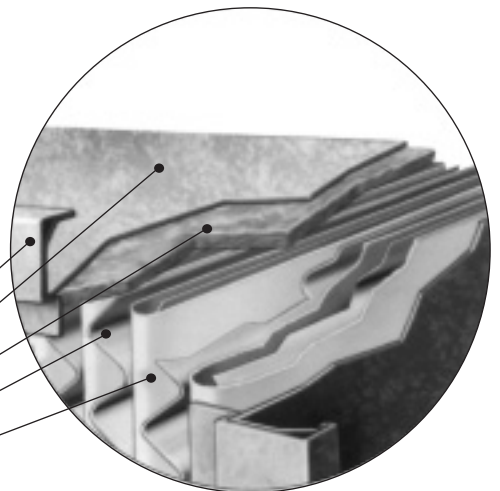
IDEAL FOR VARIABLE VOLUME SYSTEMS

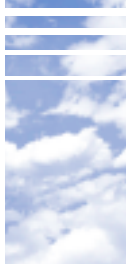
Due to the rigid all metal construction and water resistant media in a supported pleat type configuration, BioCel I filters can be used in systems with difficult operating conditions:

- Variable Air Volume
- Turbulent Airflow
- Repeated Fan Shutdown
- High Temperature
- High Humidity
- Intermittent Exposure to Water such as Sea Coast Installations



- Galvanized flanged header
- Covered mitered corners
- Aluminum separators
- Bar brace
- Sub-micron glass fiber media
- Single piece steel header
- Galvanized steel filter sides
- Glass fiber media pack sealant
- Corrugated aluminum separator
- Ultra-fine fiberglass media





Rated Filter Face Velocity (FPM)	^(a) Nominal Size (Inches) (W x H x D)	Actual Size (Inches) (W x H x D)	Rated Airflow Capacity ^(b) (SCFM)			Rated Initial Resistance (In. WG)			Gross Media Area (Sq Ft)	Filters Per Carton	Shipping Weight (Lbs)
			125 FPM	250 FPM	500 FPM	125 FPM	250 FPM	500 FPM			
95% Initial Efficiency (0.3µm Particles)											
250	24 x 24 x 12	23¾ x 23¾ x 11½	500	1000	2000	.19	.40	.95	156	1	20.0
	^(c) 24 x 24 x 12	24 x 24 x 11½	500	1000	2000	.19	.40	.95	165	1	21.5
	24 x 20 x 12	23¾ x 19¾ x 11½	413	825	1650	.19	.40	.95	127	1	17.0
	^(c) 20 x 24 x 12	19¾ x 23¾ x 11½	413	825	1650	.19	.40	.95	127	1	18.5
	12 x 24 x 12	11¾ x 23¾ x 11½	250	500	1000	.19	.40	.95	72	1	12.0
Recommended Final Resistance 2.0 In. WG.											
125	24 x 24 x 6	23¾ x 23¾ x 5¾	500	1000	—	.30	.60	—	93	2	22.0
	^(c) 24 x 24 x 6	24 x 24 x 5¾	500	1000	—	.30	.60	—	98	2	24.0
	24 x 20 x 6	23¾ x 19¾ x 5¾	413	825	—	.30	.60	—	93	2	22.0
	^(c) 20 x 24 x 6	19¾ x 23¾ x 5¾	413	825	—	.30	.60	—	96	2	21.5
	12 x 24 x 6	11¾ x 23¾ x 5¾	250	500	—	.30	.60	—	42	2	14.0
Recommended Final Resistance 1.5 In. WG.											

Notes: (a) The "H" (height) dimension indicates the direction of the separators. BioCel I filters should always be installed with the separators vertical.
 (b) SCFM (Standard Cubic Feet Per Minute) - Rated airflow capacity at "standard" conditions - 68°F at Sea Level (29.92" of Mercury).
 (c) Available in double header construction only.

Metric Conversion Info	
1.0 in. = 2.54 cm	1 CFM = 1.7 m ³ /hr
1 ft ² = .09 m ²	1.0 in. WG = 249 Pa
1 FPM = .005 m/sec.	

OPTIONS

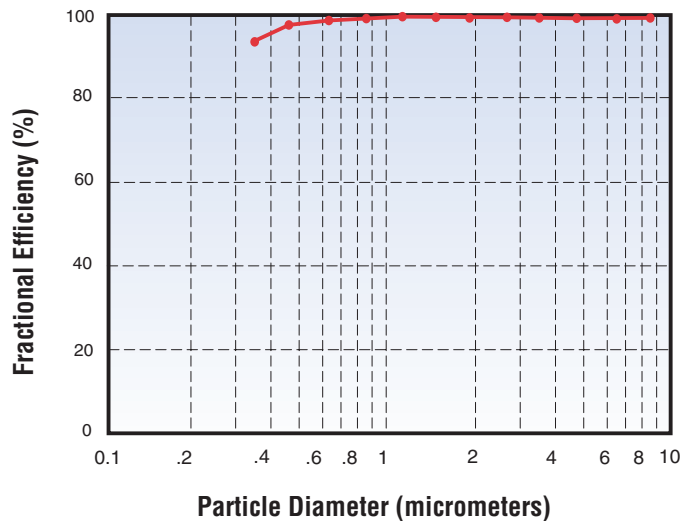
- Double header construction is available for installation into other manufacturers' framing systems.
- 6" or 12" depths available.
- HEPA filter construction available. See Bulletin AFP-1-110.

Underwriters Laboratories, Inc. Classification

BioCel I Filters are classified Class 2. Testing was performed according to U.L. Standard 900.

INITIAL EFFICIENCY VS. PARTICLE DIAMETER

At rated airflow the BioCel I has efficiency of 95% by the DOP Test Method on 0.3 micron particles and is classified MERV 16 in accordance with ASHRAE Standard 52.2.



ASHRAE 52.2 Composite Minimum Efficiency Curve



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 P O BOX 35690
 LOUISVILLE KY 40232-5690
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888.AAF.2003

