



**Koch Filter Corporation**  
Filtration Products Crafted with Pride

# *BioMAX*<sup>™</sup>

*A Complete Line of HEPA Filters for Hospital,  
Commercial and Industrial Applications*



- Available in three efficiencies on 0.3 micron particles:
  - 99.97% and 99.99% HEPA (High Efficiency Particulate Air Filters)
  - 99.999% ULPA (Ultra Low Penetration Air Filters)
- Standard and High Capacity Models
- Multiple Cell Side options
- Factory tested for efficiency and performance

## BioMAX Versatility

**BioMAX HEPA Filters** are extremely versatile and are used in a wide variety of filtration systems worldwide. In order to meet the wide range of airflow requirements, atmospheric conditions, and pressure drop parameters found in these diverse applications, Koch offers the BioMAX in two media area capacity levels and in multiple construction configurations for specialized applications.

### Two Media Area Capacity Options



#### Standard Capacity BioMAX

Standard Capacity BioMAX Filters offer an excellent combination of high efficiency, factory tested performance, and economical initial purchase price.

The filter is designed to operate under normal conditions, with the 12" deep model capable of maintaining a pressure drop of 1.0" w.g. at airflows up to 260 feet per minute.

Standard Capacity BioMAX Filters are offered with wood or metal cell sides in efficiencies of 99.97%, 99.99%, and 99.999% on 0.3 micron particles.

#### High Capacity BioMAX HC

High Capacity BioMAX HC Filters are designed to operate in applications with higher airflows up to 500 FPM (Feet per Minute). Constructed with approximately 50% more filter media than Standard Capacity Filters, High Capacity BioMAX HC Filters can operate at velocities up to 2000 CFM with only a slight increase in pressure drop and offer several additional performance advantages:

- Lower average pressure drop at equivalent airflows.
- Can operate at higher airflows with only slight increase in resistance.
- Extended media area means longer service life, fewer filter changes, and reduced maintenance and disposal costs.
- Reduced space requirements for filter banks, fewer filters required.
- Excellent choice for new systems and renovations of existing systems.

High Capacity BioMAX Filters are offered with wood or metal cell sides in efficiencies of 99.97%, 99.99%, and 99.999% on 0.3 micron particles.



### BioMAX Filters for Specialized Applications



#### BioMAX High Temperature HEPA Filters

Several models are available for use in systems with above-normal operational temperatures.

*Please consult Bulletin No. 603-C*

#### BioMAX 95% DOP Filter

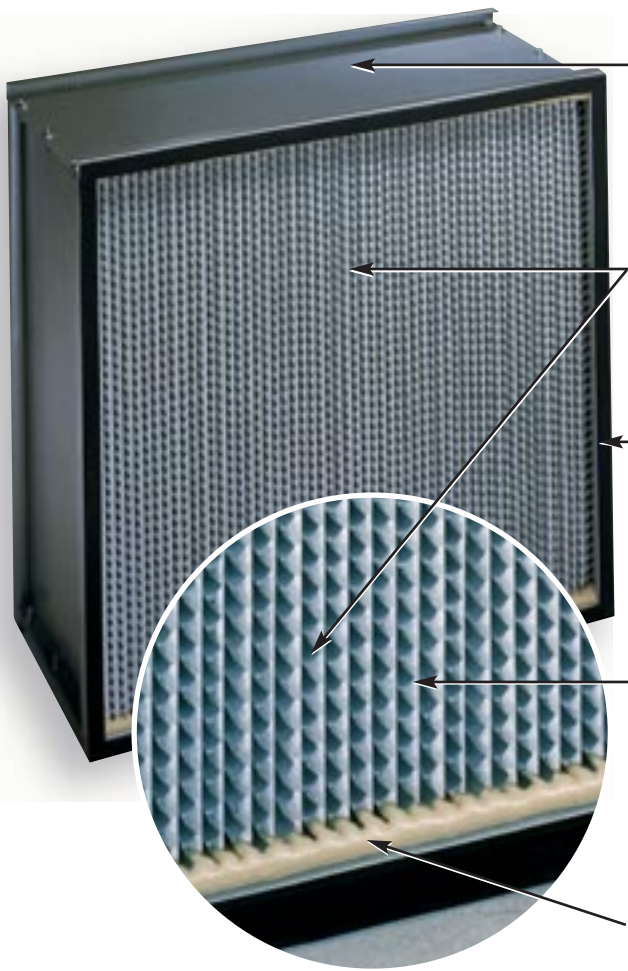
Bridges the gap between ASHRAE and HEPA efficiencies.

*Please consult Bulletin No. 603-B*



**Contact your Koch Filter Corporation representative for information about other specialized BioMAX models.**

## BioMAX Construction



### Cell Sides

Standard BioMAX HEPA Filters are constructed with a choice of either 18 gauge galvanized steel or durable particle board cell sides. For more specialized applications, multiple cell side options are available including stainless steel, aluminum, and aluminized steel.

### High Efficiency Filter Media

BioMAX media is produced from submicron glass fibers formed into a water-resistant, high efficiency, high density wet-laid paper mat. The media is fire retardant to 1000°F (538°C).

### Gaskets

Standard BioMAX HEPA Filters are furnished with neoprene gaskets 1/4" x 11/16". The gasket is installed on the downstream side of the filter to prevent leakage between the filter and the frame upon installation in the filter housing. (High temperature silicone and other gasket materials are also available.)

### Rolled Double-Edge Aluminum Separators

Precision-crafted corrugated aluminum separators maintain exact pleat spacing and ensure proper airflow throughout the filter's lifecycle. The leading edge of each separator is rolled over to create a separator that is twice as strong to avoid damage to the air filter media. (Vinyl-coated separators are available for applications with corrosive environments).

### Adhesive Sealant

The media pack in BioMAX HEPA filters is completely sealed to the cell side frame with a specially-designed polyurethane foam bond. As the adhesive cures, the material expands into the media pack eliminating leaks.

## Optional BioMAX Components and Features

### Cell Side Options

- 18 gauge galvanized steel (standard metal)
- Particle board (standard wood)
- 304 Stainless steel
- 16 gauge galvanized steel
- Aluminized steel
- Aluminum
- Plywood

### Separator Options

- Corrugated aluminum (standard)
- PVC coated aluminum

### Gasket Options

- Neoprene (standard downstream)
- Silicone
- Fiberglass Rope

*BioMAX are furnished standard with gasket downstream. Also available with gasket on both sides or with no gasket.*

### Sealant Options

- Polyurethane Foam (standard)
- Solid Urethane (optional on some models)

### Faceguards Options

- Expanded galvanized steel
- Expanded aluminized steel
- Stainless steel

## Standard Cell Side Configurations (side view)



### Double Turned Flange

Standard configuration for metal-framed BioMAX Filters. Other metal frame configurations are available.



### Box Style

Standard configuration for wood-framed BioMAX Filters. Box style is also available in metal frame.

*Some components and cell side configurations are not available on certain BioMax models. Contact your Koch representative for additional information on components, features and cell side configurations.*

## BioMAX HEPA Filters

**Koch Filter Corporation BioMAX HEPA Filters** are designed to provide the highest level of filtration available for commercial and industrial applications. They are widely used in hospitals, clean rooms, pharmaceutical plants, and in hundreds of other systems where clean air is critical in the protection of people, processes and equipment.



BioMAX HEPA Filters are constructed using the highest quality components available and are available in efficiencies of 99.97%, 99.99% and 99.999% on 0.3 micron particles.

Standard construction BioMAX HEPA Filters are manufactured with galvanized steel cell sides (UL Class 1) or Particle Board cell sides (UL Class 2). Multiple cell side options are also available.

## BioMAX Performance Testing

**Prior to shipment**, BioMAX HEPA Filters are tested individually for efficiency utilizing non-toxic polyalphaolefin (PAO) to insure that every filter meets the customer's required efficiency specifications.

Following the individual efficiency test, depending on the acceptance criteria chosen by the customer, BioMAX filters may also be scanned for pinhole leaks with the use of a specialized high intensity light or a custom-built laser photometer.

After testing to the customer's criteria, each filter is certified and labeled with its own serial number. All data is recorded and retained internally.



## BioMAX Applications



**Hospitals and  
Operating Rooms**

**Research Facilities  
and Laboratories**



**Pharmaceutical Processing**

**Electronics Manufacturing**





## **Koch Filter Corporation**

**Filtration Products Crafted with Pride**

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*\*Denotes manufacturing site.*

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***Koch Filter Corporation** maintains a policy of continuous product research and improvement, and retains the right to change product specifications and design without notice.*

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## BioMAX Technical Data

Size H x W x D	Capacity (CFM)	99.97% Initial Pressure Drop	99.99% Initial Pressure Drop	99.999% Initial Pressure Drop
<b>BioMAX Standard Capacity</b>				
24 x 24 x 11 <sup>1</sup> / <sub>2</sub> "	1050	1.0" w.g.	1.0" w.g.	1.1" w.g.
12 x 24 x 11 <sup>1</sup> / <sub>2</sub>	525	1.0 w.g.	1.0 w.g.	1.1 w.g.
23 <sup>3</sup> / <sub>8</sub> x 23 <sup>3</sup> / <sub>8</sub> x 11 <sup>1</sup> / <sub>2</sub>	1000	1.0 w.g.	1.0 w.g.	1.1 w.g.
11 <sup>3</sup> / <sub>8</sub> x 23 <sup>3</sup> / <sub>8</sub> x 11 <sup>1</sup> / <sub>2</sub>	475	1.0 w.g.	1.0 w.g.	1.1 w.g.
12 x 12 x 11 <sup>1</sup> / <sub>2</sub>	275	1.0 w.g.	1.0 w.g.	1.1 w.g.
18 x 24 x 11 <sup>1</sup> / <sub>2</sub>	800	1.0 w.g.	1.0 w.g.	1.1 w.g.
24 x 30 x 11 <sup>1</sup> / <sub>2</sub>	1325	1.0 w.g.	1.0 w.g.	1.1 w.g.
30 x 24 x 11 <sup>1</sup> / <sub>2</sub>	1325	1.0 w.g.	1.0 w.g.	1.1 w.g.
8 x 8 x 5 <sup>7</sup> / <sub>8</sub>	60	1.0 w.g.	1.0 w.g.	1.1 w.g.
12 x 12 x 5 <sup>7</sup> / <sub>8</sub>	140	1.0 w.g.	1.0 w.g.	1.1 w.g.
12 x 24 x 5 <sup>7</sup> / <sub>8</sub>	265	1.0 w.g.	1.0 w.g.	1.1 w.g.
18 x 24 x 5 <sup>7</sup> / <sub>8</sub>	420	1.0 w.g.	1.0 w.g.	1.1 w.g.
23 <sup>3</sup> / <sub>8</sub> x 23 <sup>3</sup> / <sub>8</sub> x 5 <sup>7</sup> / <sub>8</sub>	520	1.0 w.g.	1.0 w.g.	1.1 w.g.
24 x 24 x 5 <sup>7</sup> / <sub>8</sub>	550	1.0 w.g.	1.0 w.g.	1.1 w.g.
24 x 30 x 5 <sup>7</sup> / <sub>8</sub>	690	1.0 w.g.	1.0 w.g.	1.1 w.g.
24 x 36 x 5 <sup>7</sup> / <sub>8</sub>	820	1.0 w.g.	1.0 w.g.	1.1 w.g.
24 x 48 x 5 <sup>7</sup> / <sub>8</sub>	1100	1.0 w.g.	1.0 w.g.	1.1 w.g.
24 x 60 x 5 <sup>7</sup> / <sub>8</sub>	1365	1.0 w.g.	1.0 w.g.	1.1 w.g.
24 x 72 x 5 <sup>7</sup> / <sub>8</sub>	1640	1.0 w.g.	1.0 w.g.	1.1 w.g.
30 x 24 x 5 <sup>7</sup> / <sub>8</sub>	690	1.0 w.g.	1.0 w.g.	1.1 w.g.
30 x 30 x 5 <sup>7</sup> / <sub>8</sub>	860	1.0 w.g.	1.0 w.g.	1.1 w.g.
30 x 36 x 5 <sup>7</sup> / <sub>8</sub>	1030	1.0 w.g.	1.0 w.g.	1.1 w.g.
30 x 48 x 5 <sup>7</sup> / <sub>8</sub>	1365	1.0 w.g.	1.0 w.g.	1.1 w.g.
30 x 60 x 5 <sup>7</sup> / <sub>8</sub>	1700	1.0 w.g.	1.0 w.g.	1.1 w.g.
30 x 72 x 5 <sup>7</sup> / <sub>8</sub>	2050	1.0 w.g.	1.0 w.g.	1.1 w.g.
36 x 24 x 5 <sup>7</sup> / <sub>8</sub>	820	1.0 w.g.	1.0 w.g.	1.1 w.g.
36 x 30 x 5 <sup>7</sup> / <sub>8</sub>	1030	1.0 w.g.	1.0 w.g.	1.1 w.g.
36 x 36 x 5 <sup>7</sup> / <sub>8</sub>	1235	1.0 w.g.	1.0 w.g.	1.1 w.g.
36 x 48 x 5 <sup>7</sup> / <sub>8</sub>	1640	1.0 w.g.	1.0 w.g.	1.1 w.g.
36 x 60 x 5 <sup>7</sup> / <sub>8</sub>	2050	1.0 w.g.	1.0 w.g.	1.1 w.g.
36 x 72 x 5 <sup>7</sup> / <sub>8</sub>	2460	1.0 w.g.	1.0 w.g.	1.1 w.g.
<b>BioMAX HC High Capacity</b>				
24 x 24 x 11 <sup>1</sup> / <sub>2</sub>	2000	1.4 w.g.	1.4 w.g.	1.5 w.g.
12 x 24 x 11 <sup>1</sup> / <sub>2</sub>	1000	1.4 w.g.	1.4 w.g.	1.5 w.g.
23 <sup>3</sup> / <sub>8</sub> x 23 <sup>3</sup> / <sub>8</sub> x 11 <sup>1</sup> / <sub>2</sub>	1900	1.4 w.g.	1.4 w.g.	1.5 w.g.
11 <sup>3</sup> / <sub>8</sub> x 23 <sup>3</sup> / <sub>8</sub> x 11 <sup>1</sup> / <sub>2</sub>	925	1.4 w.g.	1.4 w.g.	1.5 w.g.

### Additional BioMAX Information

- Underwriter's Laboratories Classifications:
  - Metal framed BioMAX HEPA Filters: UL Class 1.
  - Wood framed BioMAX HEPA Filters: UL Class 2.
- Sizes listed above are actual filter sizes, excluding gaskets.
- Manufacturing tolerance: +0", -1/8".
- Install BioMax filters with pleats in vertical position.