

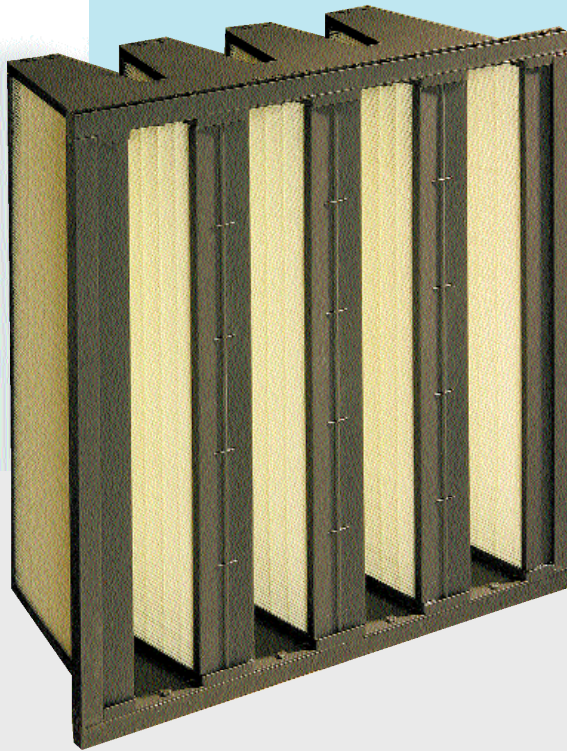


**Koch Filter Corporation**  
Filtration Products Crafted with Pride

Bulletin No. K-996B

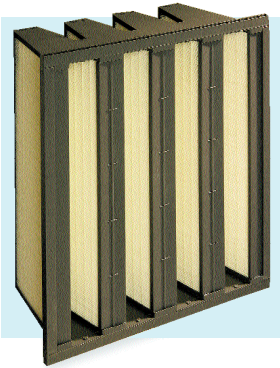
# *DuraMAX 4v*<sup>TM</sup>

*High Capacity Extended Surface  
Minipleat Filter*



- High capacity minipleat design
- Low resistance to airflow/low pressure drop
- Rigid all-plastic frame
- Five Efficiency Ranges

# DuraMAX4v™ High Efficiency Extended Surface Minipleat Filters



*The Koch Filter Corporation DuraMAX4v™ is a rigid, extended surface air filter, engineered to provide maximum performance and prolonged filter lifecycles, even in the most difficult environments. The durable, rugged construction of the DuraMAX4v make it the filter of choice in filtration systems with high velocities or variable air volumes. DuraMAX4v is constructed with an all plastic frame so it is easily incinerated after use.*

## **Low Pressure Drop Reduces Energy Costs**

*DuraMAX 4v provides an unequalled combination of low pressure drop and high efficiency through the use of our unique minipleat design. This high capacity minipleat design allows a nominal 24x24x12 filter to incorporate 194 square feet of filter media. This increased extension of the media surface area insures low pressure drop, which results in lower*

*energy costs to the user.*

## **Extended Filter Life**

*Another benefit of the increased media area is extremely high Dust Holding Capacity, which significantly prolongs the service life of the filter. Fewer filter changes translate into substantially reduced maintenance and disposal costs.*

## **Engineered Versatility**

*In order to meet the wide range of requirements found in today's complex air filtration systems, DuraMAX filters are available in five ASHRAE efficiencies (65, 75, 85, 95, and 98%). The filter is offered in three standard sizes (24x24x12, 20x24x12, and 12x24x12). Single or double header configurations are available. The DuraMAX is also available in a medium capacity version known as the DuraMAX2v.™ The 2v model offers most of the same filtration benefits as the 4v model, but has approximately 50% less filter media for applications where initial purchase price is of paramount concern. See Bulletin K-1205A for more information on the DuraMAX2v.*

## **DuraMAX4v™ Applications**

The DuraMAX4v is an extremely durable filter, yet is also lightweight and compact. This combination makes the DuraMAX an ideal choice for a tremendous variety of applications. The DuraMAX4v is constructed with an all-plastic frame and is completely incinerable after use.



### **Industrial and Petrochemical Plants**

*Gas turbine and compressor air intakes*

### **Automotive Manufacturing Plants**

*Paint booths and assembly areas*



### **Medical and Pharmaceutical Facilities**

*Operating rooms, critical care areas, clean rooms, and research laboratories*

### **Commercial Buildings**

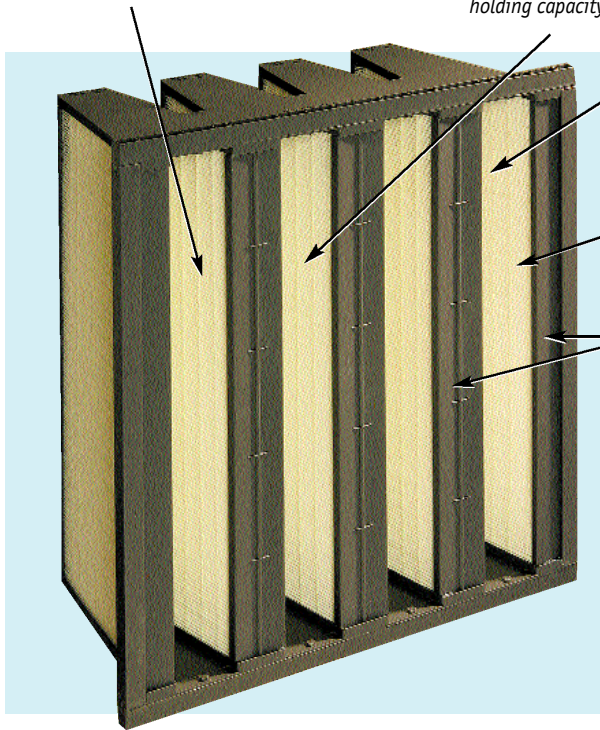
*General HVAC for office buildings, universities, sports arenas and museums*



# DuraMAX4v™ Construction

**Minipleat Design** provides low resistance to airflow and reduced energy costs.

**High Efficiency Microfiberglass Filter Media**  
Provides high efficiency and superior dust holding capacity for prolonged service life.

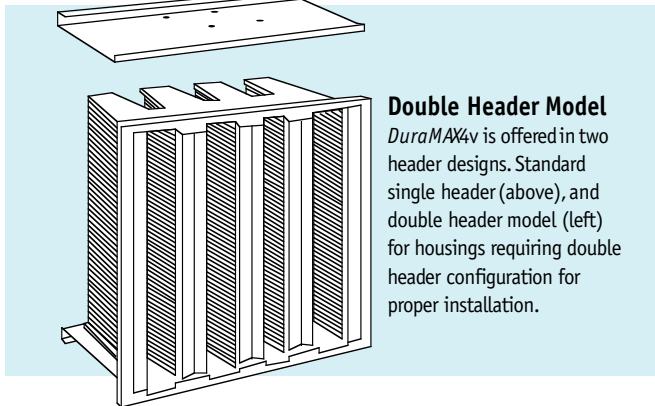


**Thermoplastic Glue-Bead Separators** ensure consistent media spacing and aerodynamic airflow.

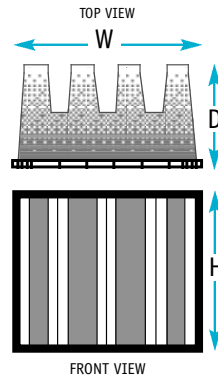
**Specialized Media Sealant** secures media to frame and eliminates air bypass

**Durable Plastic Frame Components** make the DuraMAX 4v lightweight, yet extremely rigid and easy to install. The all-plastic frame makes the DuraMAX 4v completely incinerable after use.

The DuraMAX is also available in a medium capacity version known as the DuraMAX 2v.™ The 2v model offers most of the same filtration benefits as the 4v model, but has approximately 50% less filter media for applications where initial purchase price is of paramount concern. See Bulletin K-1205A for more information on the DuraMAX2v.



**Double Header Model**  
DuraMAX4v is offered in two header designs. Standard single header (above), and double header model (left) for housings requiring double header configuration for proper installation.



## DuraMax4v Dimensions

	NOMINAL	ACTUAL
H	24"	23 <sup>3</sup> / <sub>8</sub> "
	20	19 <sup>3</sup> / <sub>8</sub>
	12	11 <sup>3</sup> / <sub>8</sub>
W	24	23 <sup>3</sup> / <sub>8</sub>
D	12	11 <sup>1</sup> / <sub>2</sub>

## Metric Conversion Table

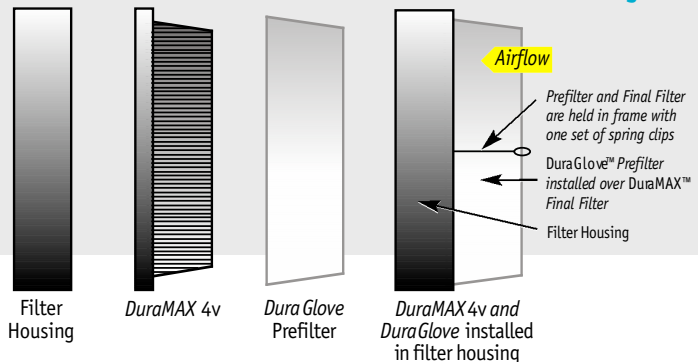
1.0 inches	2.54 cm
1 ft <sup>2</sup>	.093 m <sup>2</sup>
1 FPM	.005/m second
1 CFM	1.7m/hour
1.0 in. w.g.	249 Pa

## Reverse-Mount Installations

DuraMAX Filters are generally installed with the flat face of the filter as the air-entry side and the "v" side of the filter as the air exit side. However, for inlet air housings where space is at a premium, DuraMAX can also be installed with the "v" side as the air entry. A DuraGlove™ Synthetic Cube placed over the "v" section of the DuraMAX, creates a unitary, easy to install prefilter/final filter combination. The DuraGlove can be held in place with existing 12" spring clips.

Detailed instructions on installing a reverse-mount DuraMAX 4v are available from your Koch representative.

## DuraMAX 4v Filters can be Reverse-Mounted in the Filter Housing



Filter Housing

DuraMAX 4v

DuraGlove Prefilter

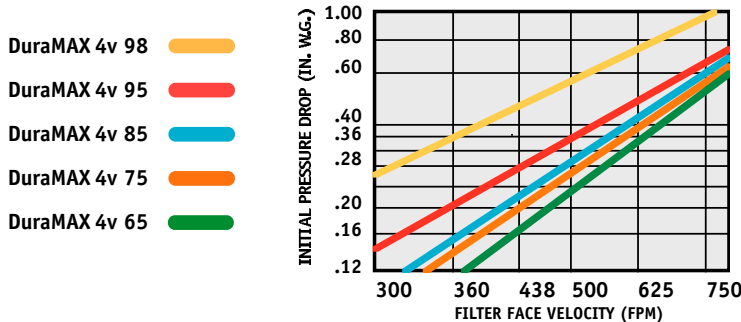
DuraMAX 4v and DuraGlove installed in filter housing

# DuraMAX4v Product Information

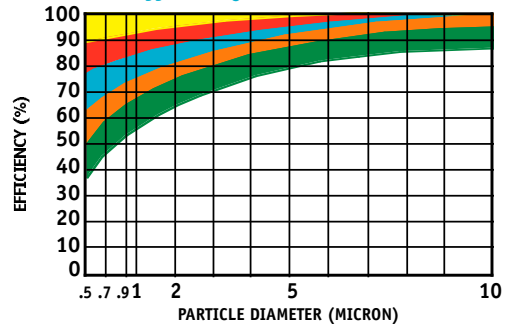
DuraMAX4v Series	ASHRAE Efficiency	Nominal Size (HxWxD)	Actual Size (HxWxD)	Rated Airflow Capacity (CFM)			Rated Initial Pressure Drop (in. w.g.)			Media Area (Sq. Ft.)
				STANDARD	MEDIUM	HIGH	STANDARD	MEDIUM	HIGH	
<b>DuraMAX 4v 98</b>		<b>MERV 15</b>								
DM4v-981	98%	24x24x12"	23 <sup>3</sup> / <sub>8</sub> x 23 <sup>3</sup> / <sub>8</sub> x 11 <sup>1</sup> / <sub>2</sub> "	2000	2500	3000	.61	.81	nr*	194
DM4v-982	98%	20x24x12	19 <sup>3</sup> / <sub>8</sub> x 23 <sup>3</sup> / <sub>8</sub> x 11 <sup>1</sup> / <sub>2</sub>	1675	2100	2500	.61	.81	nr*	162
DM4v-983	98%	12x24x12	11 <sup>3</sup> / <sub>8</sub> x 23 <sup>3</sup> / <sub>8</sub> x 11 <sup>1</sup> / <sub>2</sub>	1000	1250	1500	.61	.81	nr*	98
<b>DuraMAX 4v 95</b>		<b>MERV 14</b>								
DM4v-901	95%	24x24x12	23 <sup>3</sup> / <sub>8</sub> x 23 <sup>3</sup> / <sub>8</sub> x 11 <sup>1</sup> / <sub>2</sub>	2000	2500	3000	.36	.51	.64	194
DM4v-902	95%	20x24x12	19 <sup>3</sup> / <sub>8</sub> x 23 <sup>3</sup> / <sub>8</sub> x 11 <sup>1</sup> / <sub>2</sub>	1675	2100	2500	.36	.51	.64	162
DM4v-903	95%	12x24x12	11 <sup>3</sup> / <sub>8</sub> x 23 <sup>3</sup> / <sub>8</sub> x 11 <sup>1</sup> / <sub>2</sub>	1000	1250	1500	.36	.51	.64	98
<b>DuraMAX 4v 85</b>		<b>MERV 13</b>								
DM4v-801	85%	24x24x12	23 <sup>3</sup> / <sub>8</sub> x 23 <sup>3</sup> / <sub>8</sub> x 11 <sup>1</sup> / <sub>2</sub>	2000	2500	3000	.27	.40	.60	194
DM4v-802	85%	20x24x12	19 <sup>3</sup> / <sub>8</sub> x 23 <sup>3</sup> / <sub>8</sub> x 11 <sup>1</sup> / <sub>2</sub>	1675	2100	2500	.27	.40	.60	162
DM4v-803	85%	12x24x12	11 <sup>3</sup> / <sub>8</sub> x 23 <sup>3</sup> / <sub>8</sub> x 11 <sup>1</sup> / <sub>2</sub>	1000	1250	1500	.27	.40	.60	98
<b>DuraMAX 4v 75</b>		<b>MERV 12</b>								
DM4v-701	75%	24x24x12	23 <sup>3</sup> / <sub>8</sub> x 23 <sup>3</sup> / <sub>8</sub> x 11 <sup>1</sup> / <sub>2</sub>	2000	2500	3000	.26	.41	.59	194
DM4v-702	75%	20x24x12	19 <sup>3</sup> / <sub>8</sub> x 23 <sup>3</sup> / <sub>8</sub> x 11 <sup>1</sup> / <sub>2</sub>	1675	2100	2500	.26	.41	.59	162
DM4v-703	75%	12x24x12	11 <sup>3</sup> / <sub>8</sub> x 23 <sup>3</sup> / <sub>8</sub> x 11 <sup>1</sup> / <sub>2</sub>	1000	1250	1500	.26	.41	.59	98
<b>DuraMAX 4v 65</b>		<b>MERV 11</b>								
DM4v-601	65%	24x24x12	23 <sup>3</sup> / <sub>8</sub> x 23 <sup>3</sup> / <sub>8</sub> x 11 <sup>1</sup> / <sub>2</sub>	2000	2500	3000	.25	.38	.60	194
DM4v-602	65%	20x24x12	19 <sup>3</sup> / <sub>8</sub> x 23 <sup>3</sup> / <sub>8</sub> x 11 <sup>1</sup> / <sub>2</sub>	1675	2100	2500	.25	.38	.60	162
DM4v-603	65%	12x24x12	11 <sup>3</sup> / <sub>8</sub> x 23 <sup>3</sup> / <sub>8</sub> x 11 <sup>1</sup> / <sub>2</sub>	1000	1250	1500	.25	.38	.60	98

\*nr-operation at this velocity is not recommended

Resistance vs. Airflow



Efficiency vs. Particle Size



## Additional Product Information

- Width and height dimensions are interchangeable. DuraMAX filters may be installed with the pleats in either vertical or horizontal position.
  - Performance data is based on ASHRAE 52.1-1992 Test Standard. MERV is Minimum Efficiency Reporting Value. MERV Ratings listed are based based on ASHRAE Test Standard 52.2.
  - Temperature limitation (on standard frame and all-plastic frame): 200°F.
  - Recommended final pressure drop: 2.0" w.g.
  - Maximum Burst Pressure: 10" w.g.
  - Degradation Pressure: 15" w.g.
  - DuraMAX4v filters are classified as Underwriter's Laboratories Class 2. Testing conducted according to U.L. Standard 900.
- Color coding is for informational purposes only and does not represent color coding of actual filter media.

## Regional Sales Offices/ Distribution Centers

Louisville\*  
 Atlanta  
 Cincinnati  
 Denver  
 Detroit  
 Houston\*  
 Indianapolis  
 Kansas City  
 Nashville  
 Rancho Cucamonga, CA\*

\*Denotes manufacturing site.



## Koch Filter Corporation

Filtration Products Crafted with Pride

Post Office Box 3186  
 625 West Hill Street (40208)  
 Louisville, KY 40201  
 Phone: 502.634.4796  
 Fax: 502.637.2280  
 E mail: info@kochfilter.com  
 Website: www.kochfilter.com

*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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