



Megalam® EnerGuard™ Ducted Ceiling Module



Megalam EnerGuard Ducted Ceiling Module is a low outgassing, boron free filter, with an exceptional combination of low pressure drop, high durability, and long in-service life.



The above chart shows initial resistance with 99.99% efficiency Megalam EnerGuard, panel, for resistance values for other efficiencies please contact factory.

The Camfil Megalam EnerGuard Ducted Ceiling Module (DCM) is ideal for applications where clean air is a requirement to protect products, people, and the environment. The Camfil Megalam EnerGuard DCM includes:

- Camfil's unique polymeric fiber media with a distinctive structure of multi-functional fibers providing micron, sub-micron, and nanoparticle filtration. It is pleated using Camfil's Controlled Media Spacing technology, ensuring optimized filter element depth and pleat spacing resulting in minimized configuration losses and maintained low resistance to airflow.
- Energy cost savings - The filter has a low initial resistance to airflow and a maintained low pressure drop over its life translating to energy savings for the end user.
- Handling forgiveness - Contrary to the fragility of some media types, the EnerGuard has a durability and physical robustness to mitigate the possibility of damage during shipment, transport, installation, or incidental contact during maintenance.
- High particulate capacity for long life - The media's depth loading capability guarantees it will not prematurely load with aerosols or solids. The media's efficiency curve versus loading is shaped similar to that of glass media, ensuring regulatory compliance.
- Ultra-Low Outgassing Media - Will protect your process from unwanted chemical reactions. The media is boron free, protecting multiple critical process steps where boron is a concern.
- A filter pack that is encapsulated on all four sides using polyurethane sealant that is thermally/chemically stable to ensure minimal outgassing and maintains excellent mechanical properties ensuring high-purity air for the most demanding environments over the life of the filter.
- A media configuration that is optimized through Camfil's Controlled Media Spacing resulting in a lower pressure drop than other media pleating techniques.
- Includes thermoplastic resin separators to promote uniform airflow while eliminating media to media contact and fiber break-off associated with other media and pleating techniques.
- A light weight extruded aluminum profile joined at the corners with Camfil's exclusive Klip-Lok mechanism forming a robust and durable module for long lasting integrity. Seismic tabs are included.
- An anodized aluminum hood with a duct collar connection that mates to the frame to form a rigid module. Available with either a standard 8", 10", 12", or 14", duct collar which includes an integral continuous raised ridge to assist in securing flexible ducting.
- An adjustable diffusion disc that promotes uniform airflow over the entire filter and allows filter-to-filter air balancing. Room side adjustment is accomplished through a port in the center divider. An additional port is included for pressure drop and/or aerosol concentration measurement.
- For life science applications, when oil aerosol challenging is required, Camfil recommends a challenge concentration of 15-20 $\mu\text{g/l}$.
- For microelectronic applications the Megalam EnerGuard should NOT be challenged with oil aerosols but polystyrene latex (PSL) spheres.
- The Megalam EnerGuard Ducted Ceiling Module is available in efficiencies of 99.99% and 99.995%.



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PERFORMANCE DATA & FILTER SELECTION

Description	Model Number	Nominal Dimensions			Metric Dimensions (mm)	Initial Resistance @ 100 fpm (inches w.g.)	Module Weight (lbs)
		Width (inches)	Length (inches)	Height (inches)			
Pack Depth 45 mm Efficiency 99.99%							
2x2, 10" collar	B2123.62-23.62D1-05-00-00-12-P	23.62	23.62	5.38	600x600x137	0.31	21.2
2x2, 12" collar	B2123.62-23.62D1-05-00-00-12-Q	23.62	23.62	5.38	600x600x137		34.0
2x4, 10" collar	B2123.62-47.62D1-05-00-00-12-P	23.62	47.62	5.38	600x1210x137		
2x4, 12" collar	B2123.62-47.62D1-05-00-00-12-Q	23.62	47.62	5.38	600x1210x137		
Pack Depth 70 mm Efficiency 99.99%							
2x2, 10" collar	B2123.62-23.62-9-13-00-00-32-P	23.62	23.62	5.92	600x600x150	0.21	23.7
2x2, 12" collar	B2123.62-23.62-9-13-00-00-32-Q	23.62	23.62	5.92	600x600x150		39.0
2x4, 10" collar	B2123.62-47.62-9-13-00-00-32-P	23.62	47.62	5.92	600x1210x150		
2x4, 12" collar	B2123.62-47.62-9-13-00-00-32-Q	23.62	47.62	5.92	600x1210x150		
Pack Depth 45 mm Efficiency: 99.995%							
2x2, 10" collar	B2223.62-23.62D1-05-00-00-12-P	23.62	23.62	5.38	600x600x137	0.38	21.2
2x2, 12" collar	B2223.62-23.62D1-05-00-00-12-Q	23.62	23.62	5.38	600x600x137		34.0
2x4, 10" collar	B2223.62-47.62D1-05-00-00-12-P	23.62	47.62	5.38	600x1210x137		
2x4, 12" collar	B2223.62-47.62D1-05-00-00-12-Q	23.62	47.62	5.38	600x1210x137		
Pack Depth 70 mm Efficiency: 99.995%							
2x2, 10" collar	B2223.62-23.62-9-13-00-00-32-P	23.62	23.62	5.92	600x600x150	0.25	23.7
2x2, 12" collar	B2223.62-23.62-9-13-00-00-32-Q	23.62	23.62	5.92	600x600x150		39.0
2x4, 10" collar	B2223.62-47.62-9-13-00-00-32-P	23.62	47.62	5.92	600x1210x150		
2x4, 12" collar	B2223.62-47.62-9-13-00-00-32-Q	23.62	47.62	5.92	600x1210x150		

Above includes centerboard w/ 2 ports and adjustable diffusion disc.

2x2 designates nominal 24" by 24" model and 2x4 designates 24" by 48" model.

The models listed above are for applications requiring challenging filters with oil aerosols. For filters not requiring oil aerosol challenging, especially microelectronics applications, contact Camfil for custom product code recommendations.

Camfil Megalam EnerGuard DCM Specification

1.0 General

1.1 - Unit shall be ducted high efficiency ceiling module consisting of anodized aluminum frame, a galvanized back plate, polyurethane encapsulating sealant, dual access ports, and internal HEPA filter per the enclosed schedule.

1.2 - Sizes shall be as noted on drawings or other supporting materials.

Resistance to airflow @100fpm shall not exceed 10% of the target value listed above or on the specification document.

2.0 Construction

2.1 - Filter housing shall be constructed of an anodized aluminum frame mated with a galvanized steel back plate. It shall be designed for installation into a T-Bar ceiling grid system.

2.2 - The media pack shall have a depth of 45 mm or 70 mm and have an efficiency of 99.99% or 99.995%.

2.3 - Filter shall be one continuous pleating of multifunctional polymer fibers and no membrane, allowing for depth loading capability comparable to glass fiber media, and formed into a uniform pack depth of 45mm, 53mm, or 70mm. The filter shall be resistant to damage from finger poke pressure tests.

2.4 - The media pack shall be completely encapsulated in a polyurethane sealant creating a rigid self-supporting pack. The sealant shall be low outgassing, fire-resistant and self-extinguishing.

2.5 - The module shall include an adjustable airflow diffusion disc that is adjustable from the room side through an access port.

2.6 - A second port, accessible from the room side, shall be provided to allow aerosol test challenge introduction or pressure drop measurement.

2.7 - Housing shall be supplied with an 8", 10" 12" or 14" collar that includes an integral continuous raised ridge for duct side connection to air system.

3.0 Performance

3.1 - The filter shall be identified by a three part printed label (not handwritten) indicating individual unit identification, bar code serialization, and actual unit performance test results including efficiency, airflow, and initial pressure drop.

3.2 - The module shall be listed by Underwriters Laboratories as UL 900.

3.3 - Manufacturer shall provide evidence of facility certification to ISO 9001:2015. Items in parentheses () require selection.



For detailed specifications please consult your local Camfil Distributor, Representative or www.camfil.us.

Camfil has a policy of uninterrupted research, development, and product improvement. We reserve the right to change designs and specifications without notice.



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