Camfil Megalam Panel Filters provide fine airborne particulate control to meet the requirements of today’s high technology cleanrooms, clean benches, and clean air devices. With configuration and performance flexibility, the Megalam Panel will provide the highest level of protection for product processes and personnel. Each Camfil Megalam Panel Filter includes:

- Micro glass fiber media in efficiencies from 95% @ 0.3 micron to 99.99995% @ MPPS\(^1\). The media is pleated using Camfil’s Controlled Media Spacing™ technology. CMS™ ensures optimized filter element depth and pleat spacing resulting in minimized configuration losses and low resistance to airflow.

- Thermoplastic resin separators to ensure uniform pleat spacing and form a rigid self-supported media pack. Media-to-media contact, and associated fiber break-off, is eliminated.

- A heavy-duty, lightweight anodized aluminum frame for high-strength and ease of installation. The frame corners are secured with Camfil’s exclusive Klip-Lock mechanism for module durability and long-term integrity.

- A media pack that is potted on all four sides with a fire-retardant, thermally/chemically stable, shock-adsorbing polyurethane elastomer sealant, assuring leak-free integrity and low-out gassing.

- Is manufactured in a ISO Class 7 (M 5.5, Class 10,000) cleanroom and tested in a ISO Class 5 (M 3.5, Class 100) clean space.

- Is tested using Camfil’s Auto-Scan automated leak detection system. Filters are serialized, bar coded, and all data is provided on a label on the filter.

- Is available in pack depths that include 53mm (2.1”), 70mm (2.8”), and 100mm (4.0”).

\(^1\)- MPPS, Most Penetrating Particle Size
A common optional sealing technique is gel seal. The filter frame is designed with an integral gel channel that is filled with a cleanroom grade low out-gassing polyurethane based gel. The gel interfaces with an opposing knife edge integral to the ceiling grid, housing, or equipment. The gel offers a fluid seal integrity that makes it a good choice for filters that are difficult to install or frequently replaced. This technique is most often seen in “bottom loading” or “room side replaceable” applications.
Active face area should be exclusive of the filter frame. The gasket seal version of the Megalam has an extruded aluminum frame with an industry standard 3/4 inch flange that results in active face dimensions 1-1/2 inches smaller than overall face dimensions. An additional subtraction must be made if a center divider is present. Some manufacturers may base their calculations on overall dimensions which may provide misleading data. When comparing products make sure performance data is provided in a consistent format. Example:

\[
Q = VA = ?
\]
\[
A = (24-(2 \times 0.75)) \times (48-(2 \times 0.75)) = 7.27 \text{ ft}^2
\]
so:

If \( V = 100 \text{ fpm} \) then \( Q = 727 \text{ cfm} \)

Where:

\( Q = VA, \) \( Q= \) volumetric flow rate
\( V = \) filter face velocity
\( A = \) active face area

For more information ask for Camfil Farr technical bulletin on airflow.

**Megalam Panel Filter Specifications**

**Air Filters—1.0 General**

1.1 · Air filters shall be high-efficiency, individually tested and certified panel filters consisting of aluminum enclosing frame, low-outgassing sealant, thermoplastic resin media separators and micro glass media filter pack.

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

**2.0 Construction**

2.1 · Filter shall be manufactured in a Class 10,000 (M5.5, ISO Class 7) cleanroom and tested in a Class 100 (M3.5, ISO Class 5) clean space.

2.2 · Filter media shall be one continuous pleating of micro glass fiber media formed into a uniform pack depth of (53, 70, 100)* MM.

2.3 · Pleat spacing shall be by thermoplastic resin media separators to prevent media-to-media contact and promote uniform airflow through the media pack.

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-retardant and self-extinguishing.

2.5 · The enclosing frame, of anodized aluminum profiles, shall be joined together with secure internal corner clips to form a rugged and durable enclosure. Overall dimensional tolerance shall be correct within +0, -1/8", and square within 1/4".

2.6 · Gaskets, unless otherwise noted, shall be low outgassing cleanroom grade cellular urethane foam. Corners shall be dovetailed to form an interlocking joint and positive seal.

**3.0 Performance**

3.1 · The filter shall be identified on a label indicating minimum efficiency, tested airflow and pressure drop. The unit shall be bar code serialized for individual unit identification.

* Items in parentheses ( ) require selection.