

The most durable solution  
available for Life Sciences  
production cleanrooms.



Reformulated, proven media  
technology only by Camfil.



## Camfil, FIRST in market with ePTFE

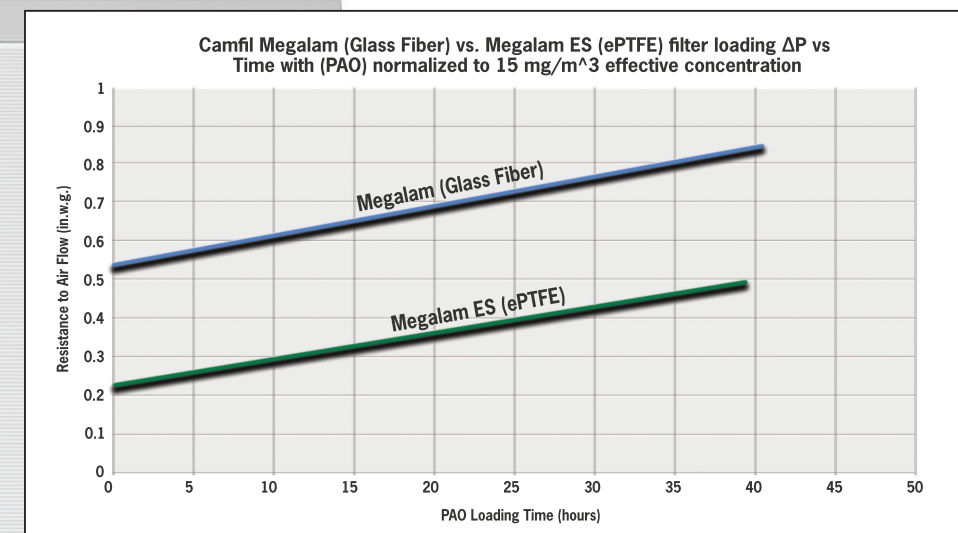
In 1995, Camfil was the first to introduce high flow hydrophobic expanded polytetrafluoroethylene, ePTFE to the air filtration industry. Today, Camfil introduces a new, reformulated generation of air filtration products using ePTFE, designed specifically for life sciences industries. The Megalam ES, developed with ePTFE membrane media is five times more robust than traditional media, offers lower average pressure drop and delivers a true 99.995% efficiency at most penetrating particle size (MPPS). Camfil is known to have the lowest pressure drop and longest life for HEPA filters in life sciences applications. Continuing to advance HEPA technology, Camfil's reformulated ePTFE membrane medias offer a complete efficiency range including 99.95%, 99.99%, 99.995%, and 99.9995%.

The Megalam ES ePTFE membrane media was developed to be used in life sciences cleanroom applications. It is tolerant of oil-based aerosol challenging up to 15 mg/cubic meter with agents such as PAO, and is resistant to SOP cleaning, disinfectant and decontamination agents including chlorine dioxide, formaldehyde and vaporized hydrogen peroxide. Camfil recognizes life sciences production challenges and constraints, and the Megalam ES was developed to provide the solution — the highest level of air quality and reliability for your sensitive manufacturing process.

Megalam ES is designed for  
Life Sciences,  
Pharmaceutical,  
Biotechnology,  
Medical Device,  
Vaccine,  
and Generic Drug Manufacturing.

### Lower Average Pressure Drop Than Fiberglass

Camfil introduces its most advanced membrane filter available, the Megalam ES. Externally, the filter may seem familiar, however, the technology within this air filter is groundbreaking. With the lowest pressure drop ever, the Megalam ES is a highly efficient and reliable HEPA filter that forgives rough handling, minimizes downtime and maximizes production time, thereby maximizing operational profits.



### Leak-Free Seal

The Megalam ES includes a gel seal or seamless gasket to ensure a leak free seal between filter and Camfil's Pharmaseal terminal diffuser, or any conventional holding frame. Additional sealing options are available.

### Megalam ES Manufactured by Camfil in the USA.



Strict quality control is essential to provide your ideal filter in a timely manner, with no delays to installation.

“ Camfil is the only filter manufacturer that can provide a true ePTFE HEPA filter at 99.995% efficiency at MPPS, completely compatible with current testing regulations. ”

## Five times more *robust* than traditional HEPA filters.

Care and attention has been important while handling HEPA filters for installation and certification. The Megalam ES is much more forgiving to the handling mistakes that can occur during shipping, unpacking, and unexpected changes in the manufacturing environment.

### Durable, Reliable Media

Camfil's Megalam ES can reduce filter installation costs by 5-30% by virtually eliminating installation failures due to media leakage. Megalam ES delivers the required performance over its lifetime with ease and peace of mind, ideal for continuous manufacturing applications.



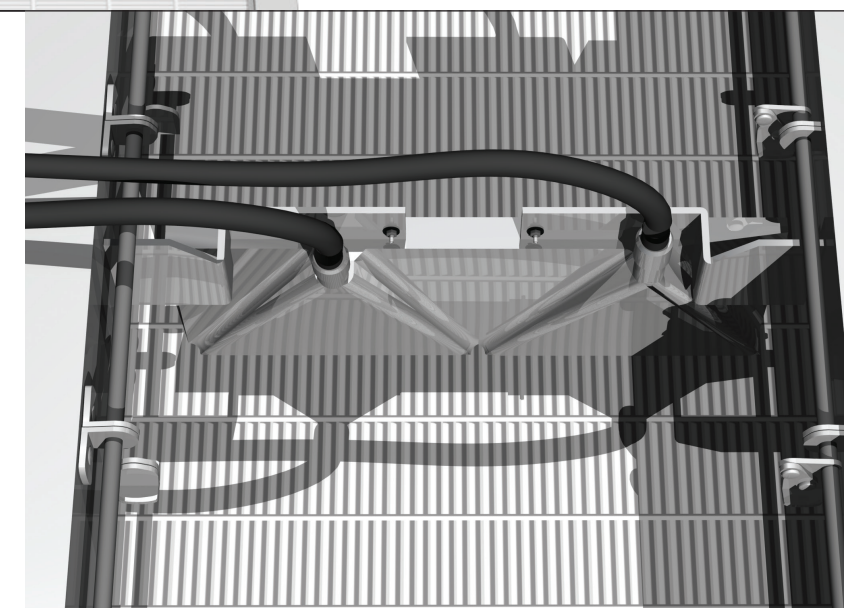
Camfil recommends contact be avoided with any type of HEPA filter media. A HEPA filter should always be handled by the frame.

### Every Filter is Tested and Certified

As required by regulators and cGMPs, every Megalam ES filter is individually scan-tested for airflow, resistance and efficiency.

### Efficiency

Megalam ES covers the complete needs for customers with efficiencies from 99.95%, 99.99%, 99.995% and 99.9995% at MPPS according to IEST-RP-CC001. Camfil will never compromise on delivering the required efficiency, which is why each Megalam ES is scanned for leaks, serialized, bar coded, and all data is provided on the filter label and an accompanying test report.



## Technical Descriptions

**Application:** HEPA filter for life sciences and medical device manufacturing

**Type:** HEPA filter

**Frame:** Extruded and anodized aluminum

**Gasket:** Silicone, gel, or seamless gasket

**Media:** Spunbond support and ePTFE membrane layers

**Sealant:** Polyurethane

**Grid:** Mild steel epoxy paint RFW 406 SN lace white

**MPPS Efficiency:** EN 1822:2009: 99.95%, 99.99%, 99.995%, and 99.9995%

**Maximum Temperature/Humidity:** Gel Seal 150° F (65.6° C)

Silicone Gel and Seamless Gasket: 160° F (71.1° C)

**Remarks:** Each filter is scanned for leaks using the procedure as defined in IEST RP—CC0034.

Packing protocol: polyethylene bag and high-strength cardboard carton

