

## Electrostatic **Adult HMEF**

LongTerm Anaesthesia/Ventilation  
99.999% Bacterial/Viral Efficiency  
Electrostatic media + HME  
Resistance to Flow 116 Pa @ 30 L.min-1  
32 g.m L-3 Moisture Output @ VT 500ml  
Deadspace 44ml  
Weight 32g  
22M/15F-15M/22F ISO Connectors  
With luer sampling port



## **Adult Filter**

ShortTerm Anaesthesia  
99.999% Bacterial/Viral Efficiency  
Electrostatic media  
Resistance to Flow 90 Pa @ 30 L.min-1  
Deadspace 45ml  
Weight 31g  
22M/15F-15M/22F ISO Connectors  
With luer sampling port



## **Compact Bacterial/Viral Breathing Filters.**

When an efficient filter is needed, MN 125 Bacterial filter are cost effective solutions. They differ only in size and their round shape makes handling easier and minimises the risk of patient harm. They are an excellent choice for short term anaesthesia treatments.

## **HME**

Passive heat and moisture exchangers MN 126 (HMEs) represent a simple and effective way to replace one of the most important upper airway functions; they retain the heat and moisture of expired air and return it to the inspired gases. As the nasal cavities normally play a very active role in this conditioning, HMEs have also been called "artificial noses".

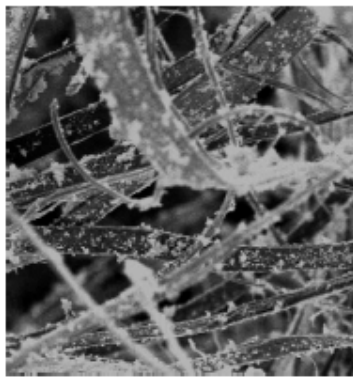
It offer a high level of microbial filtration for patient and staff safety and an exceptional moisture output for effective airway humidification. The resistance to air flow is low, for safe use in any ventilation technique. Combining a good filtration efficiency and moisture output with a reduced dead space,

## Characteristics:

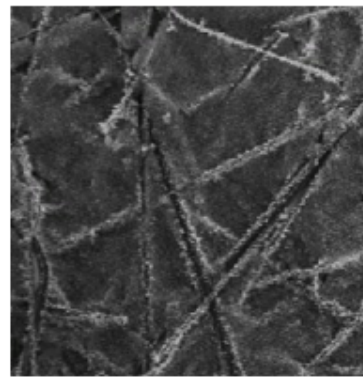
- Longer life and lower costs because of open construction with high loading
- More economical operation due to low pressure drop with high efficiency
- Permanently charged fibers capture more sub-micron particles than conventional media
- Large selection of basis weights and thickness
- Multitude of framing options

Type G family of media features an open and uniform web. It is uniquely constructed of permanently charged engineered fibers. The charged fibers enable the media to capture particles throughout the depth of the filter, rather than only on the surface.

The combination of electrets and open construction provide a low pressure drop with superior efficiency. A lower pressure drop allows the construction of a system with a higher flow rate and more air changes per hour. An alternate choice may be the same airflow but a reduced blower speed and quieter, more energy efficient operation. The overall results, beyond the increase in efficiency, may include longer life, reduced costs and energy savings.



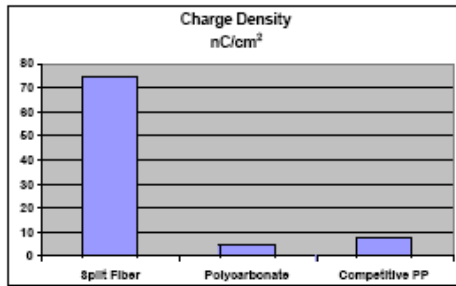
*Left: Electrostatically charged open construction Type G media allows loading throughout its' depth with minimal airflow and pressure drop change.*



*Right: Surface loading media like fiberglass or other micro fiber construction are more closed and are more prone to an increase in pressure drop with loading.*

*Note: Samples loaded with equivalent amounts of sodium chloride on a TSI 8110 Automated Filter Tester*

*March 2002  
Supersedes 1995*



Original data from "Electret Fibrous Media for Aerosol Filtration", Baumgartner, Hanspeater, Proceedings of Ber VDI, Vol. 3, 146. Dusseldorf: VDI-Verlag, 1987.

The performance of its electrostatic charge is key to the performance of the Type G media. The high permanent electrostatic charge allows the fibers to better capture and hold sub-micron particles\*. Higher charge also helps prevent shedding of collected dirt during use and filter change out.

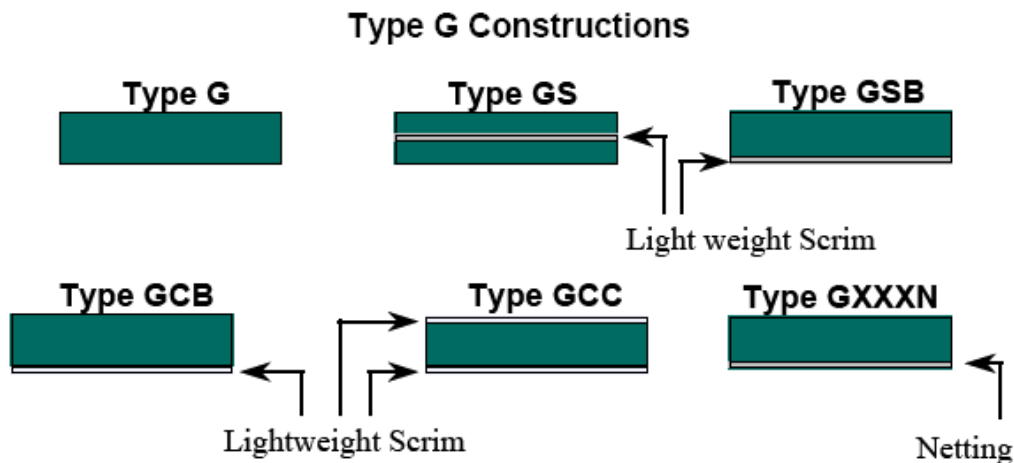
\*Romay, et al., Degradation of Electret Filters during DOP Aerosol Loading, 1998 AFSS Proceedings, May, 1998

## Applications:

Applications include room air purifiers, air conditioners, disc drives, vacuum cleaner exhaust filters, copy machines, printers, electronic equipment and cabin air filtration. This media can also be used in a variety of medical applications including anaesthetic gas/respiratory care, pulmonary function/spirometry and incubator filters

## Product Selection:

Type G media comes in a large variety of basis weights and constructions to meet all your filtration needs. Basis weights range from 30 to 300 grams per square meter. We can assist you in a custom design of the optimum filter for your application. The graphs at the end of this document provide a good starting point for selection of the best product for your application. Please contact Technical Service for complete information.

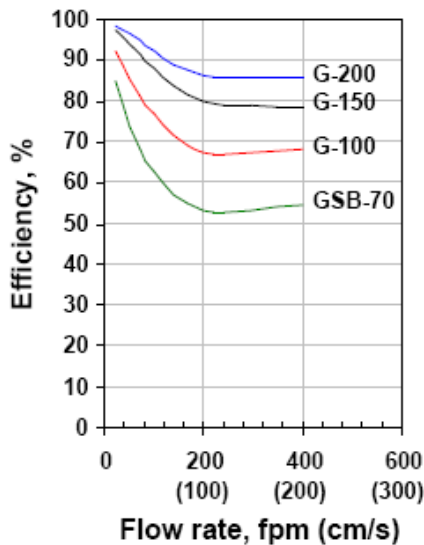


*Note: The netting and scrims provide support for the fibers during manufacturing, converting, and during use. They are mainly used in the lighter basis weight materials.*

## Efficiencies and Pressure Drops:

The plot below and the ones on the following pages show initial efficiencies and pressure drops for common basis weights of the Type G media at stated flow rates. We can also provide information at the specific flow rate and efficiency needs of your application.

**Efficiency vs. Flow Rate**



*Note: The materials were tested on a TSI 8110 Automated Filter Tester with sodium chloride as the test challenge.*

## Framing:

Filter frames can range from no frame, to flexible or lightweight frames, to rigid or heavy duty ones. Please see Filtration Products' bulletin "Framing Options" for more information. It can be used as a starting point for understanding the various options available. Consult with Filtration Products Technical Service for specific applications.

## Temperature and Humidity Resistance:

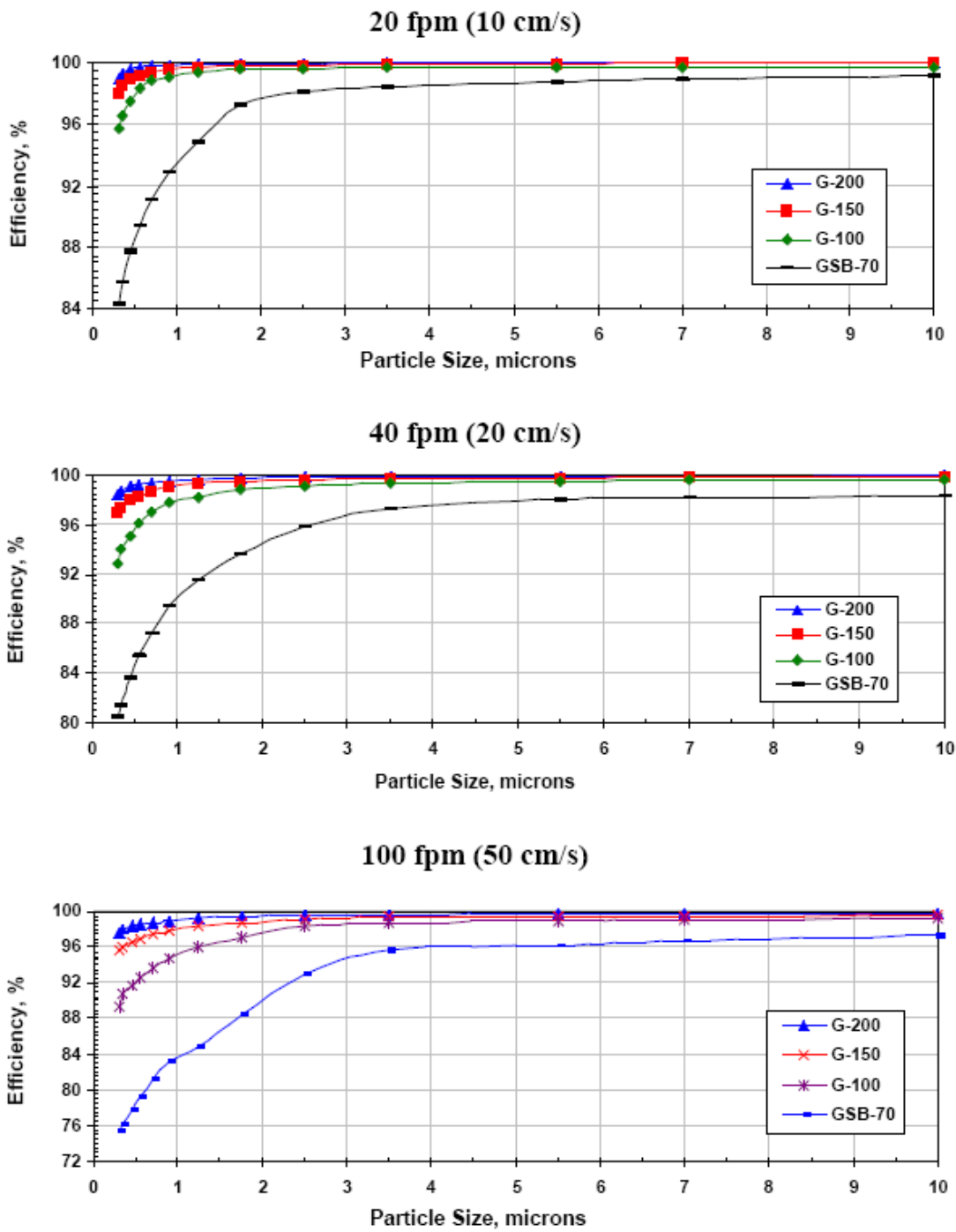
Type G media resists degradation over time and is able to withstand extremes in temperature and humidity up to 160°F (70°C) and 100% relative humidity.

**Recommended Shelf Life:** Two years from date of product manufacture when stored at room temperature conditions of 72°F (22°C) and 50% relative humidity.

## Cleaning:

Filters should be replaced rather than cleaned. Filter replacement schedule is determined by application requirements.

## Efficiency vs. Particle Size



## Pressure Drop vs. Face Velocity

