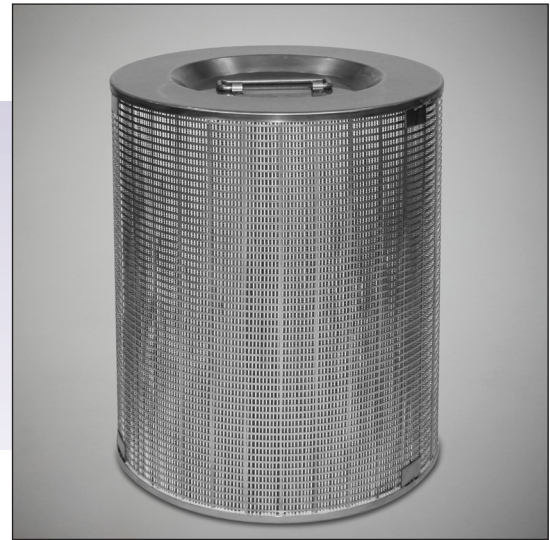
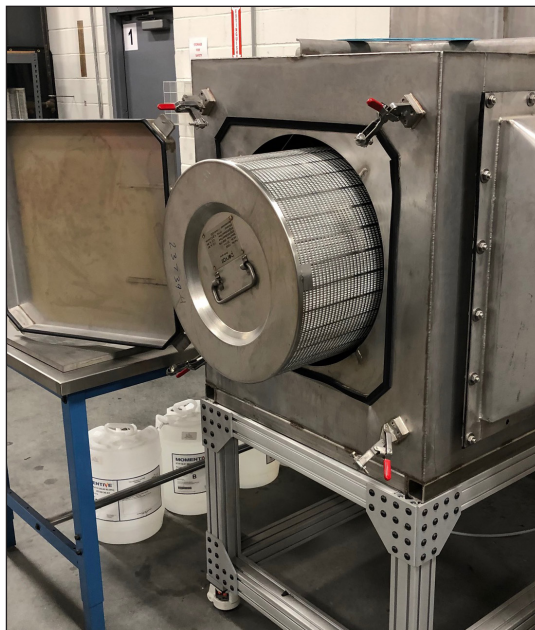


High Strength HEPA Filter Elements

Developed in response to the challenging demands of the US Department of Energy, Porvair Filtration Group has engineered a unique, validated range of high flow, high strength, radial flow HEPA filters. These filters are capable of handling large volumes of gases at high differential pressure in high humidity environments.

Originally developed for the Nuclear industry, this filter element design incorporates permeable corrugated separator technology as well as woven scrim-supported glass fiber media to achieve unprecedented flow capacity and strength.

Capable of removing 99.97% of 0.3 micron particles to HEPA or N99 standards, these filters can operate in conditions where other HEPA elements fail, ensuring a fast exchange of air, and process cleanliness in all critical air purification applications.



Features and Benefits

- **High strength**

This filter is able to withstand differential pressures much greater than typical glass fiber HEPA filter elements.

- **Extreme dirt-holding capacity**

The filtration media is capable of withstanding high pressure loss (due to high dirt load) before media failure, in both wet and dry environments.

- **Low pressure loss**

The corrugated separators ensure optimal pleat spacing and openness resulting in low differential pressures at high flowrates.

- **Resistance to flammability**

Tested in accordance with UL586, the elements do not contribute to flammability and have a low loss-on-ignition content.

Typical Applications

- **Industrial HVAC**

The purification of the immediate environment in which critical processes are being carried out such as microelectronics fabrication and biopharmaceuticals production.

- **High Volume Retail and Residential HVAC**

High Efficiency Particulate Air filters are an essential part of any overall air quality hygiene regime and are available in self-contained, retrofit and portable HVAC systems.

- **Nuclear**

The removal of radioactive particulate emitted during the vitrification and other containment processes of Nuclear waste thereby preventing contamination of the atmosphere.

Performance Specifications

Materials of construction

Filter media: Nonwoven glass fiber
 Hardware: Stainless Steel 304
 Potting compound: Urethane
 Gaskets and O-rings: Gel seal

Dimensions

Length: 23.750 – 23.875" (603.3 – 606.4 mm)
 Diameter: 20.312 – 20.375" (515.9 – 517.5 mm)

Filter Weight:

72.5 lb [32.9 kg]

Effective filtration area:

320 square feet (29.73 square meters)

Typical maximum differential pressure (all lengths):

1.60 inch W.C. at rated flow (2000 ACFM air)

Maximum operating temperature:

200°F (93°C)

Minimum Filtration Efficiency

99.97% @ 0.30 µm particle size at 100% and at 20% rated flow

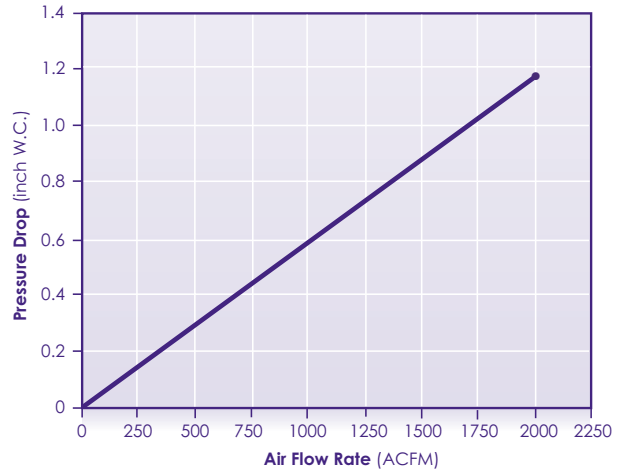
Integrity (Rupture) Rating

Min. DP 10" W.C. after aerosol loading without rupture or pleat collapse

Environmental Specifications

Flowrate (ACFM)	Air Temperature (°F)	Relative Humidity (%)	Aerosol Type
2000	177	40	Al(OH) ₃
2000	177	40	Arizona Road Dust
2000	177	40	Acetylene Soot
1200	166	50	Al(OH) ₃

Flow Vs. differential pressure for safe change HEPA filter F2238



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PFG645 / Nov 2020