



## Nuclear Grade Push Through HEPA Filter Inserts

The push-through filter insert is primarily intended for use as either a supply or exhaust HEPA filter to contained cells such as glove box's and isolators.

The standard insert comprises a cylindrical filter element, protected by inner and outer support grids, encapsulated by an open and closed end flange with external sealing rings.

They are replaced by pushing the used insert through its cylindrical housing into the contained cell, for bagging and disposal.

M.C. Air Filtration manufacture & factory test these inserts for compliance with AESS 30/95200 and all other United Kingdom local nuclear licensed site engineering standards.

Push through HEPA filter inserts are manufactured to meet the stringent requirements of the nuclear authorities within the United Kingdom and are available in 3 standard forms:

**Type I** Low temperature combustible inserts.  
Manufactured with rigid polyurethane end flanges & perforated plastic retaining grids.

**Type I** Low temperature non-combustible inserts.  
Manufactured with rigid polyurethane end flanges with expanded steel retaining grids.

**Type II** High temperature non-combustible inserts.  
Manufactured with coated steel or stainless steel end flanges, expanded steel retaining grids and a temperature resistant cement sealant to bond all materials together.

### Filter Medium:

All derivatives utilize the same non-flammable, water repellent, micro fine glass paper conforming with the requirements of AESS 30/93400. The media pack is formed into a cylindrical mini-pleat element with glass thread spacers.

### Seals:

External silicone rubber lip-seals 3 mm thick mechanically fitted to both end flanges.



Technical Specification	
Range	12.5 to 160 l/sec
Integral Efficiency	99.99% in accordance with BS3928
Clean Resistance	250 Pascal
Final Resistance	≤1000 Pascal
Burst Pressure	≥3000 Pascal
Max Working Temp*	Type I : 70°C    Type II : 250°C
Max Working R.H.	80%

\*Under test conditions:

**Type I** filter inserts will maintain their integral efficiency when subjected to 120° C for up to 120 minutes.

**Type II** filter inserts will maintain an integral efficiency of >98% when subjected to 500° C for up to ten minutes.

Standard Range				
Rated duty (l/sec)	Insert length (mm)	Insert diameter (mm)	To suit housing diameter (mm)	Approx weight for Type I (kg)
12.5	150	131	135	1
35	300	207	210	3
75	375	247	250	4
160	400	326	330	5



Push through filter systems are available in a range of 4 standard sizes however we also produce non-standard sizes and design's to suit customer & contract specific applications.

**Quality Control:**

All M.C. Air Filtration products are designed, manufactured and tested under strict quality controlled conditions and in accordance with our BS EN ISO 9001:2008 accreditation. Each HEPA filter will be individually tested and issued with a unique serial number for future trace-ability.

Alternative sizes, specifications and materials of construction are available.

Please contact this sales office to discuss your specific requirement and for further information on these products.

We reserve the right to change product specification without notice

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M.C. Air Filtration also manufactures a complementary range of push through filter housings.

Housings can be:

Installed in either a horizontal or vertical orientation.

Designed to be mounted directly onto an enclosure or for mounting In-line / in-duct.

Supplied with or without a "Safe Change Bagging Neck"

Configured to suit a single working HEPA Insert or 2-stage (primary & secondary) HEPA Inserts

