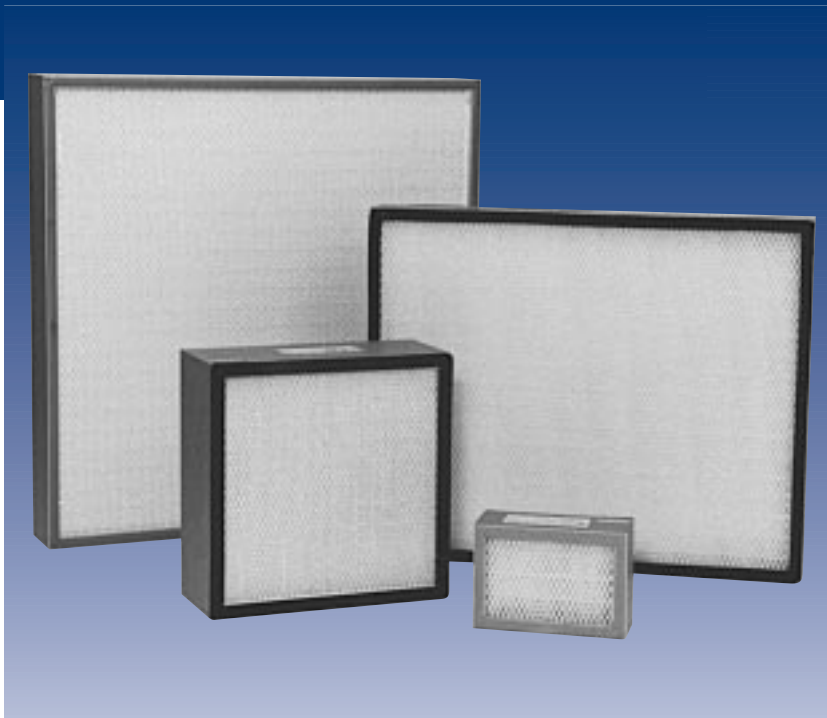


Vokes Absolute HS & US

P r o d u c t s

HS & US

McLeod Russel



Panel Absolute Filters

In a cubic meter of air there are millions of sub micron particles. Each of these particles is potentially harmful to today's technically advanced products and processes.

The strictly controlled conditions under which many manufacturing processes are undertaken require, in addition to conventional HVAC filters, HEPA or ULPA filters specifically designed to remove the finest particles.

Over the years McLeod Russel's range of high efficiency air filters has been continuously developed in order to meet the latest performance requirements.

Our high efficiency filters range from H12 - U17 as classified by BS EN 1822.

These filters are either installed in clean room ceilings or walls to meet US FED 209E British standard BS5295 and European standard ISO EN 14644-1.

Panel Absolute Filters

Available in HEPA (HA/HS) and ULPA (US) grades, 'Mini-Pleat' panel absolute filters provide a lightweight rigid solution for clean room ceilings and laminar flow benches. They are designed as low profile 68mm deep (72mm with EPDM gasket), 90mm (96mm with EPDM gasket) and 124mm (130mm with EPDM gasket) units and are supplied with a low particle shedding anodised aluminium frame and white epoxy coated protective grilles on both faces.

Panel absolute filters are available in a range of twenty eight standard sizes, with air volume capacities between 150 and 2700m³/h (at 0.45m/s)

Panel Absolute Filters 'D Range'

The 'D Range' of panel absolute filters are available to directly replace existing 'Deep-Pleat' clean room panel filters, including Vokes Absolute C and other similar filters. Featuring the same 'Mini-Pleat' filter pack used in other Vokes panel absolute filters, they are manufactured with a 149mm deep (155mm with gasket) low particle shedding anodised aluminium frame.

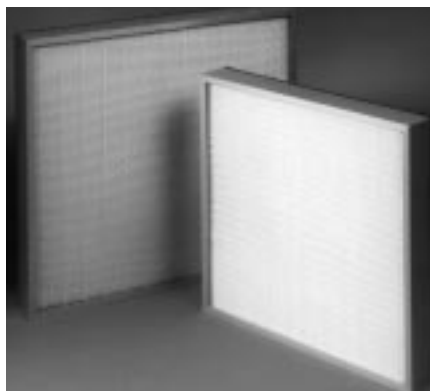
D range' panel absolutes are 50% lighter than traditional deep-pleat filters and have a 25% lower pressure drop. They are also of a more robust construction, with protective grilles on both faces. 'D Range' panel absolutes are available as HEPA and ULPA grade filters, in a comprehensive range of sizes with air volume capacities between 150 and 2700m³/h (at 0.45m/s).

D Range filters are available with efficiencies from 99.995% to 99.99995 at MPPS when tested to BS EN 1822. They are manufactured from a water resistant glass paper media using a 'MiniPleat' filter pack construction. This method of filter pack construction maximises the media area, providing high efficiency filters with low pressure drops and low running costs.

'Minipleat' filter packs consist of finely pleated media, positively spaced using thermosetting beads (Hot melt). Positive pleat separation maximises the use of the media area and minimises pressure drops. The 'MiniPleat' filter pack is bonded into the filter frame using a specially formulated sealant, which combined with the method of filter pack construction, minimises the risk of outgassing from adhesives

Specification

For detailed specifications please contact McLeod Russel



'Minipleat' filter packs consist of finely pleated media, positively spaced using thermosetting beads (Hot melt). Positive pleat separation maximises the use of the media area and minimises pressure drops. The 'MiniPleat' filter pack is bonded into the filter frame using a specially formulated selant, which combined with the method of filter pack construction, minimises the risk of outgassing from adhesives. To protect the filter pack in transit and during subsequent handling, protective grilles are fitted on the inlet and outlet face as standard.

Panel absolute filters are available as standard 68mm and 124 deep, low profile units suitable for clean room and clean bench applications. Others depths of filters are also available.

Features and benefits

- HEPA and ULPA grade filters for enclosed spaces requiring environmental control to BS5295 Pt.1, US Federal Standard 209E and BS EN 14644.
- Available with efficiencies up to 99.9999% for 0.3µm particles, in a wide range of standard and custom sizes.
- Can be supplied photometer scan tested to BS5295 Pt.1 App. C (HS and US ranges) or visually leak tested to DIN 24184 Class S (HA range). Can also be tested to EN 1822 standard.
- A 'Mini-Pleat' filter pack construction specially designed to minimise pressure drops and operating costs.
- Protective grilles fitted on inlet (panel filters) and outlet faces.
- A range of standard panel absolute filters suitable for clean room and clean bench applications.
- Special 'D range' panel absolute filters designed as direct replacements for 'Deep-Pleat' clean room panels including Vokes Absolute C.

Clean Room Filters

Clean room filters are available with efficiencies from 99.995% to 99.99995 at MPPS when tested to BS EN 1822. They are manufactured from a water resistant glass paper media using a 'MiniPleat' filter pack construction. This method of filter pack construction maximises the media area, providing high efficiency filters with low pressure drops and low running costs.

Selected airborne particulate cleanliness classes for cleanrooms and clean zones

ISO classification number (N)	Maximum Concentration Limits - Particles per m ³				
	0.1 µm	0.2 µm	0.3 µm	0.5 µm	5 µm
ISO Class 1	10	2			
ISO Class 2	100	24	10	4	
ISO Class 3	1000	237	102	35	
ISO Class 4	10000	2370	1020	352	
ISO Class 5	100000	23700	10200	3520	29
ISO Class 6	1000000	237000	102000	35200	293
ISO Class 7				352000	2930
ISO Class 8				3520000	29300
ISO Class 9				35200000	293000

*NOTE - Uncertainties related to the measurement process require that concentration data with no more than three significant figures be used in determining the classification level