

ACTIV-V®

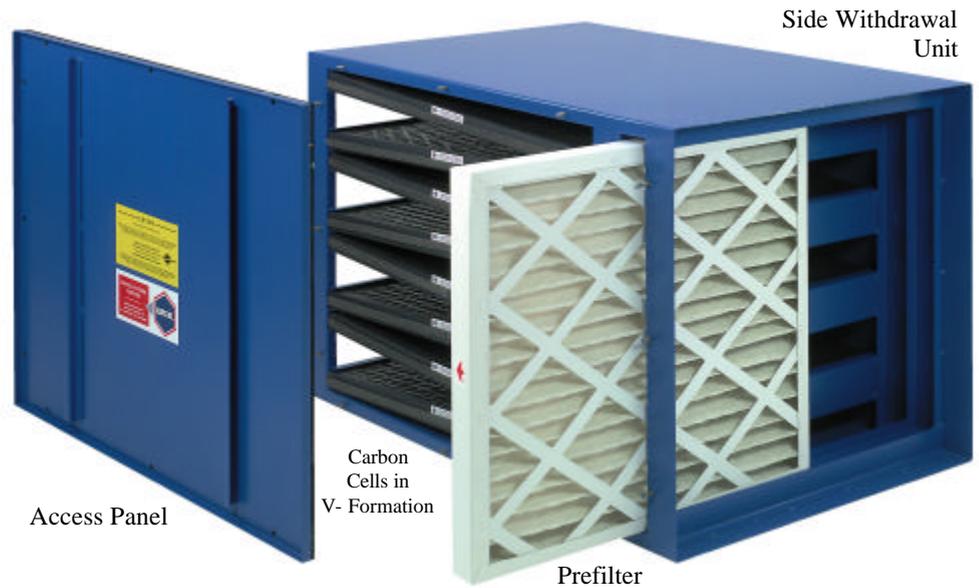
Activated Carbon Filter Units for the high efficiency removal of odours and gaseous contaminants.



The Activ-V has been designed and developed by EMCEL Filters Limited as a high performance, general purpose, activated carbon filter unit to meet the air purification requirements of air conditioning and ventilation systems in many differing applications. The filter meets the requirements of the Department of the Environment specification M&E100.

Applications inc:

- Airports
- Breweries
- Factories
- Hospitals
- Hotels
- Laboratories
- Offices
- Research Units
- Tanneries
- Warehouses



The prime use of the Activ-V filter is a recirculation filter in air conditioning and ventilation systems for the purpose of removing the odour and staleness associated with the recirculation of conditioned air. It is also suitable for the removal of light concentrations of specific chemical and gaseous contaminants from industrial intake or exhaust systems.

High quality activated carbon is used in pure granular form which promotes the efficient adsorption of a wide range of odours, gases and chemical vapours. The carbon employed combines a high CTC value with the necessary hardness to prevent powdering and dusting due to airflow disturbance.

The EMCEL Activ-V construction comprises variable numbers of activated carbon cells arranged in “V” formation, giving high carbon weight/air volume loading for efficient and long service life performance.

The outer casings are manufactured in powder coated mild steel as standard, or in stainless steel for use in corrosive environments.

The filter unit construction allows for front, top, bottom, or side, filter cell withdrawal options and all units are available with a cleanable or disposable particle prefilter.

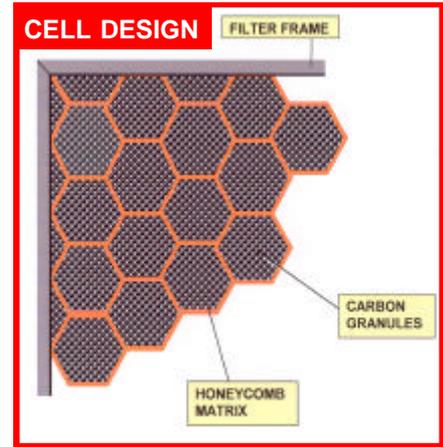
Units can be produced in a standard range of dimensions or can be manufactured to suit customers’ individual application requirements.



The unique, EMCEL patented honeycomb filter cell, design prevents the formation of voids and gaps caused by settlement of the carbon granules in the airstream.

Prolonged contact time between airflow and carbon enhances the retention capability of the filter, and the robust cell design, which enables a high weight of activated carbon to be used, further maximises carbon cell life.

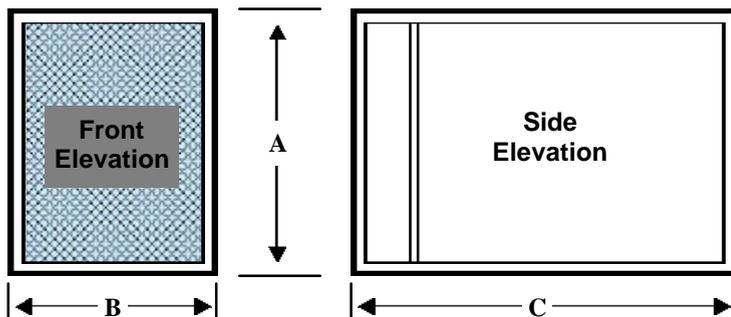
This design also provides a diffuse airflow over the extent of the filter face, ensuring that the contaminated air is exposed to the full weight of activated carbon contained in the filter cells. Low airflow resistance is also achieved despite the high carbon weight and cell thickness that are utilised within the carbon unit.



The Activ-V is suitable for the removal and control of a wide variety of odours and gaseous contaminants. As leaders in the field of activated carbon filtration, the EMCEL Technical Sales Team is available to discuss and advise on the application of Activ-V filters to individual environment conditions, odours and airborne chemical contaminants.

In order to maintain filtration efficiency the carbon filter cells within the Activ-V will need replacing from time to time depending on the contaminant demands made upon them. The EMCEL Carbon Life Prediction Service is available to identify the optimum filter cell replacement point to ensure maximum filtration efficiency coupled with cost-effective replacement.

Standard Activ-V units provide airflow capacities of 0.25 to 1.0m³/sec. Larger airflow are accommodated by assembling multi-banks or complete plenum chambers with channel frames and access doors can be supplied.



| ACTIV-V Unit Ref. | Airflow Capacity (m ³ /sec) | Dimensions | | |
|-------------------|--|------------|-----|-----|
| | | A | B | C |
| NV1 | 0.25 | 305 | 610 | 550 |
| NV2 | 0.5 | 305 | 610 | 950 |
| NV3 | 0.75 | 457 | 610 | 950 |
| NV4 | 1.0 | 610 | 610 | 950 |

Nominal Dwell Time: 0.1 second. Minimum Carbon Weight Loading: 40kg/1.0m³/sec. Resistance to airflow: 125 Pa excluding prefilter

The maximum operating conditions for the ACTIV-V filter are 50°C and 85% RH. The filter should in no circumstances be subjected to temperatures in excess of 70°C. Care must be taken over the handling and disposal of contaminated filter cells consistent with the gaseous contaminant adsorbed.



Other Emcel products include:

- Replacement Carbon Panels
- Odour Control Filters
- Particle Filters
- HEPA Filters
- Washable/Cleanable Panels
- Special Filters



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EMCEL FILTERS LIMITED

Blatchford Road, Horsham, West Sussex, RH13 5RA, United Kingdom

Tel: (01403) 253215 Fax: (01403) 217011

www.emcelfilters.co.uk E-mail: filtration@emcelfilters.co.uk

