

MAXICARB®

Activated Carbon Filter Units for the removal of chemical vapours, odorous and toxic gases.



Activated carbon filtration has for many years been recognised as a highly successful method of controlling dangerous and noxious gaseous contaminants. Maxicarb filters have been developed to remove and control a wide range of chemical vapours, odorous and toxic gases from airstreams where critical, high efficiency filtration and heavy duty performance is necessary.

Applications inc:

- Airports
- Breweries
- Chemical Plants
- Cosmetics
- Factories
- Hospitals
- Laboratories
- Research Units
- Tanneries
- Warehouses



Emcel Maxicarb filters have been specified and supplied worldwide in many diverse industrial environments but are particularly suitable for applications in Laboratories, Chemical Production Plants, Industrial Complexes and Research Establishments where the intake or discharge of noxious gases are required to be controlled.

The filter unit construction allows for front, top, bottom or side, filter cell withdrawal options and all units may be supplied with a cleanable or disposable particle prefilter. Standard sizes are available but special can be manufactured to suit application.

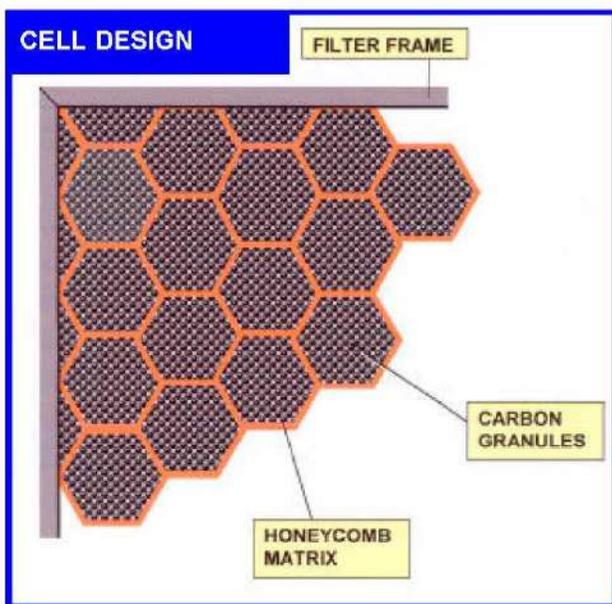
The high quality activated carbon grades used in Maxicarb filters are capable of adsorbing a wide cross section of gas and chemical contaminants. The complex EMCEL patented cell construction enables the Maxicarb to capture a broader spectrum of gases and chemical vapours than conventional carbon filters.

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

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



Emcel Maxicarb units are designed specifically for efficient filtration within a heavy duty environment



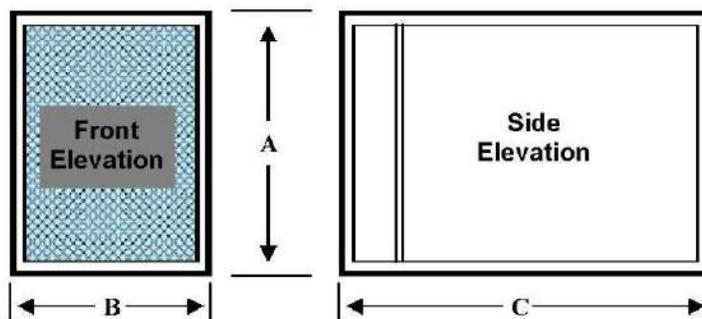
The unique, EMCEL patented honeycomb filter cell design prevents the formation of voids and gaps caused by settlement of the carbon granules in the airstream. Also, special impregnated carbon grades may be used which enable the filter to exhibit the chemisorption properties necessary to achieve the enhanced removal of specific gases.

As leaders in the field of activated carbon filtration, the EMCEL Technical Sales Team is available to discuss and advise on the suitability of Maxicarb filters for individual environment conditions, odours and airborne chemical contaminants.

The EMCEL Carbon Life Prediction Service is available to assist in identifying the optimum filter cell replacement point to ensure maximum filtration efficiency coupled with cost-effective replacement.

Maxicarb Reference	Capacity (m ³ /sec)	Dwell Time (Secs)	Dimensions		
			A	B	C
1MXB1	0.25	0.2	355	610	950
1MXB2	0.25	0.3	355	610	950
1MXB3	0.25	0.5	355	610	1150
2MXB1	0.50	0.2	660	610	950
2MXB2	0.50	0.3	660	610	950
2MXB3	0.50	0.5	660	610	1150
3MXB1	0.75	0.2	965	610	950
3MXB2	0.75	0.3	965	610	950
3MXB3	0.75	0.5	965	610	1150
4MXB1	1.00	0.2	1270	610	950
4MXB2	1.00	0.3	1270	610	950
4MXB3	1.00	0.5	1270	610	1150

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



Minimum Carbon Weight Loading: 80kg/1.0m³/sec. Resistance to airflow: 110 Pa excluding prefilter

The maximum operating conditions for the Maxicarb 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.



EMCEL FILTERS LIMITED

Other Emcel products include:

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



Certificate No. FM 24138



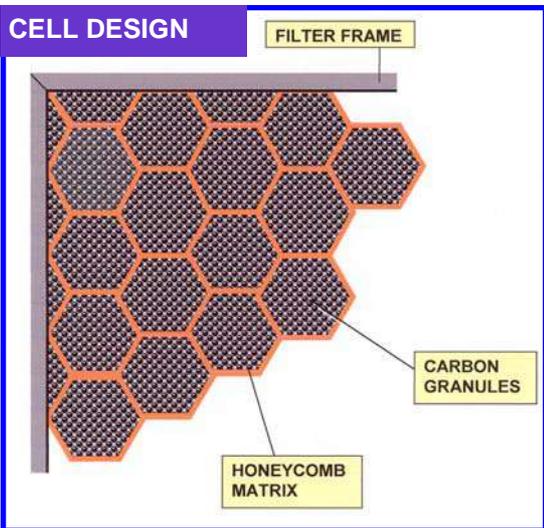
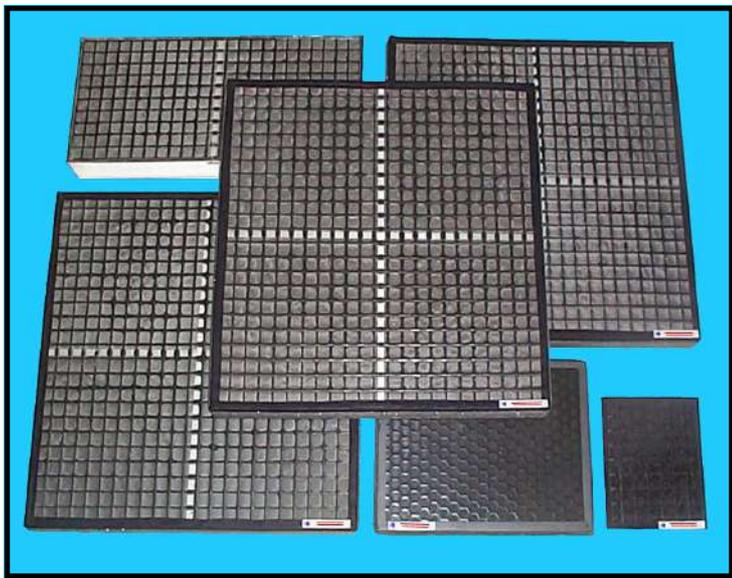
REPLACEMENT CARBON FILTER CELLS



Activated carbon filter cells manufactured by EMCEL Filters Limited to any size and specification to suit any new or existing filter installation.

With over 45 years technical and practical experience gained in the field of carbon filtration, EMCEL has the knowledge and capability to manufacture a superb range of high quality, high performance replacement filter cells for a broad spectrum of applications.

**Made to Measure -
Virtually any size, shape and quantity**



Filter Cell Construction

The unique and patented honeycomb matrix at the heart of the EMCEL filter cell not only creates a strong, rigid and robust holding structure for granular carbon, but also prevents the problems of carbon granule settlement, pinholing and carbon dust liberation that can be associated with conventional loose-fill tray designs.

The complex honeycomb feature also provides a diffuse airflow across the face of the filter cell which ensures that the full charge of carbon contained in the cell is utilised for contaminant removal, thereby maximising filtration efficiency and filter life. Filter edge seals are supplied as standard to prevent air bypassing the filter cells.

High Quality Carbon Standard or Impregnated grades	✓	Carbon granules not stuck together to form bonded carbon slab	✓	Fast Track delivery on request	✓
Galvanised Steel Frames with edge seals	✓	Rigid filter construction prevents distortion	✓	Full technical services available	✓
No carbon settlement leading to loss of filtration	✓	Manufactured under ISO 9001 quality procedures	✓	Free Carbon Life Prediction Service	✓

Activated Carbon Grades

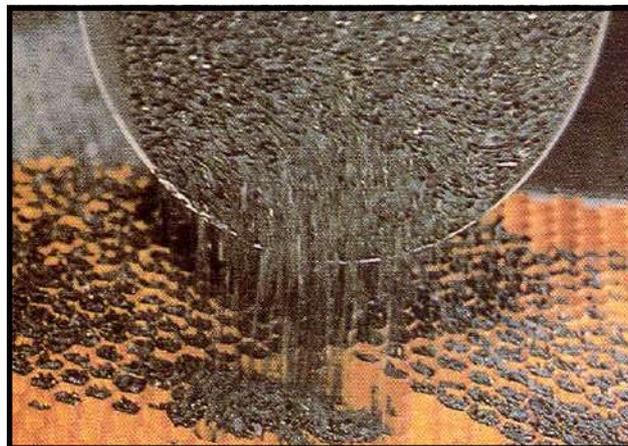
EMCEL filter cells are filled with high quality carbons used in pure granular form.

Standard Grade

The coconut-shell based carbon used as a standard grade combines the high activity necessary to effectively adsorb a broad spectrum of odours, gases and chemical vapours, with the granular hardness to minimise attrition and carbon dust liberation under the action of airflow.

Impregnated Grades

In addition to the standard grade, a number of special impregnated carbon grades are available including proprietary impregnated grades developed for the enhanced removal of specific contaminants such as Sulphur Dioxide, Nitrogen Dioxide, Hydrogen Sulphide, Acid Gases, Ammonia, Formaldehyde, Mercury Vapour, Arsine, Phosphine, Toxic Gases and Radioactive Isotopes.



Technical Service and Support

Extensive in-house test and analytical equipment enables EMCEL to undertake filter performance monitoring supported by independent R&D establishments and leading Universities.

EMCEL Technical Services have been instrumental in developing new carbon grades for special/critical applications and also operate the free carbon life prediction service for users of EMCEL carbon filters.



Emcel manufacture carbon filters for industries worldwide including:
Airports, Archives, Brewing, Chemical Production, Electronics, Galleries, Hospitals, Hotels, Isotope Production, Laboratories, Libraries, Military Installations, Museums, Nuclear Power Generation, Petrochemical, Pharmaceutical, Research Units, Restaurants, Sewage, Telecommunications, Wastewater



Other Emcel products include:

- ◆ **Activated Carbon Units**
- ◆ **Odour Control Filters**
- ◆ **Particle Filters**
- ◆ **HEPA Filters**
- ◆ **Washable/Cleanable Panels**
- ◆ **Special Filters**



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