

# SONOXCARB®

Activated Carbon Filter Units for the removal of atmospheric pollutant gases, notably Sulphur Dioxide, Nitrogen Dioxide and Ozone.



The damaging effects of atmospheric pollution have long been acknowledged as a cause for environmental concern. Combustion of fuels and industrial processes result in Sulphur Dioxide, Nitrogen Dioxide, Ozone and Hydrogen Sulphide being present in the atmosphere.

### Applications inc:

- Archives
- Art Galleries
- Chemical Plants
- Fume Cupboards
- Libraries
- Museums
- Oil Industries
- Steel Production
- Sewage Plants



For many years EMCEL Filters Limited has researched and developed the use of activated carbon filters capable of reducing atmospheric pollution to acceptable levels. The Sonoxcarb Filter was developed as a result of these findings and has for more than 30 years demonstrated the high efficiency performance of activated carbon.

The efficiency and longevity of EMCEL Sonoxcarb filters make them highly suitable not only for applications in Museums, Art Galleries and Libraries but also for oil, petrochemical and sewerage installations. Sonoxcarb Filters have been supplied for many of these applications where control of atmospheric pollution gases is critical in order to prevent corrosive damage taking place to artefacts or control equipment.

Over the last 30 years many of the leading museums, art galleries, libraries and archive stores in the United Kingdom have installed EMCEL Sonoxcarb filters.

### EMCEL Museum Filtration Installations Include:



- |                                     |                                     |
|-------------------------------------|-------------------------------------|
| <b>British Museum</b>               | <b>New Sackler Library</b>          |
| <b>Victoria &amp; Albert Museum</b> | <b>Ulster Museum</b>                |
| <b>National Gallery</b>             | <b>Westminster City Archives</b>    |
| <b>National Portrait Gallery</b>    | <b>National Library of Scotland</b> |
| <b>Tate Gallery</b>                 | <b>National Gallery, Dublin</b>     |
| <b>Imperial War Museum</b>          | <b>Trinity Library, Dublin</b>      |
| <b>Queens Gallery</b>               | <b>Walker Art Gallery</b>           |
| <b>Wallace Collection</b>           | <b>Kew Public Records Office</b>    |
| <b>Natural History Museum</b>       | <b>Dome Complex Museum</b>          |
| <b>National Maritime Museum</b>     | <b>1830 Museum, Manchester</b>      |

State of the art filters ...  
... for the Arts of the State



The EMCEL Sonoxcarb 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.

A special impregnation process is applied to the carbon, enabling it to exhibit the chemisorption necessary to achieve the enhanced removal of pollutant gases.

The filter unit construction allows for front, bottom, or side, filter cell withdrawal options and all units are supplied with a cleanable or disposable particle prefilter. Units are available in a standard range of dimensions or can be manufactured to suit customers’ individual requirements.

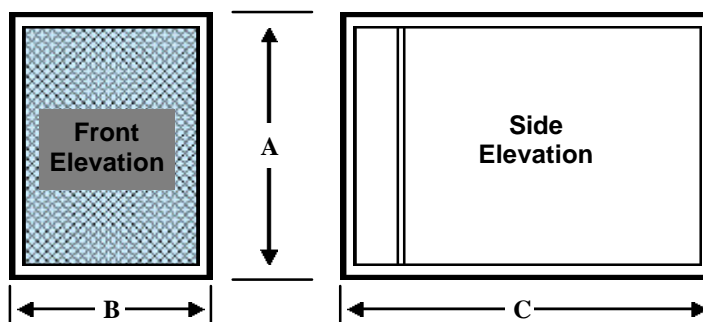
Sonoxcarb Reference	Capacity (m <sup>3</sup> /sec)	Dwell Time (Secs)	Dimensions		
			A	B	C
1SXB1	0.25	0.2	355	610	800
1SXB2	0.25	0.3	355	610	950
1SXB3	0.25	0.5	355	610	1250
2SXB1	0.50	0.2	660	610	800
2SXB2	0.50	0.3	660	610	950
2SXB3	0.50	0.5	660	610	1250
3SXB1	0.75	0.2	965	610	800
3SXB2	0.75	0.3	965	610	950
3SXB3	0.75	0.5	965	610	1250
4SXB1	1.00	0.2	1270	610	800
4SXB2	1.00	0.3	1270	610	950
4SXB3	1.00	0.5	1270	610	1250

Standard Sonoxcarb units provide airflow capacities of 0.25 to 1.0m<sup>3</sup>/sec. Larger airflows can be accommodated by assembling multi-unit banks, or complete plenum chambers with channel frames and access doors may be supplied.

As leaders in the field of activated carbon filtration, the EMCEL Technical Sales Team is available to discuss and advise on individual applications. Our Carbon Life Prediction Service can assist in identifying the optimum filter cell replacement point to ensure filtration efficiency coupled with cost-effective replacement.

For museum, library and art gallery installations, on site monitoring, filter efficiency and carbon life tests utilising sulphur dioxide can be provided. This provides an assurance to museums and galleries that

the required post filtration levels of the main pollution gases are being achieved throughout the 4/5 year minimum service life.



**Minimum Carbon Weight Loading: 80kg/1.0m<sup>3</sup>/sec. Resistance to airflow: 110 Pa excluding prefilter**

The maximum operating conditions for the Sonoxcarb 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



Certificate No. FM 24138

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