

Carbon filters

Carbon filters are used for the filtration of gaseous particles. The use of either loose charcoal or media impregnated with activated carbon is highly efficient for the filtering of gases. Various types of carbon filter are used, depending on the application, contamination and concentration in question.

The filters can be largely split into three fields or application:

- Organic gases
- Acidic gases
- Alkaline gases

Although various types of carbon filter are used, depending on the field of application, it should be noted that all carbon has to be impregnated to guarantee suitable efficiency for both acidic and alkaline gases. Furthermore, the preferred product variant has to be selected based upon the concentration in question. For instance in case of high concentrations of gas, a cylinder

containing loose carbon pellets is used as it has a higher adsorption capacity than a pleated filter element.

Selecting the appropriate carbon filter nevertheless remains a complicated process. We are here to assist you in doing so.

Construction

Our activated carbon filters are available in the form of elements which can be filled with loose activated carbon pellets. These filters are a reliable solution and are characterized by their combination of high adsorption capacity and low flow rate. In addition, we provide an extensive range of filters which comprise a relatively small amount of activated carbon sandwiched between two layers of filter media. The flow rate of these filters is particularly high, while their adsorption capacity is low. In the case of extremely high concentrations of gases, it is advisable to use stainless steel construction.

Applications

Activated carbon filters are regularly used in airports, record offices, museums and the semi-conductor industry. The filters can be installed in either standard holding frames or frames specially designed for the activated carbon cylinders. It is important that separate filters are fitted in front or behind the carbon filters. A pre-filter is required to prevent the activated carbon filter from becoming clogged with dust particles. An after-filter is also required to avoid the possibility of activated carbon particles entering the airflow.

Installation

- Ensure that no leakage can occur (new gaskets can be supplied together with filters)
- Ensure that the frame and the cabinet in which the new filter is to be fitted are cleaned beforehand
- Activated carbon pellets may be spilled either during installation or throughout the lifespan of the filter; ensure that these are removed before the system is turned on
- Maintain records of the filters installed; note the date, type and initial resistance



Activated carbon filters



Carbon cylinder



Specifications

Application: Airports, industry, catering
Frame: Galvanized steel or stainless steel (RVS)
Bonding: -
Activated carbon: M-CARB generic activated carbon, specific
 Impregnated carbon used for airports and industry
Gasket: Neoprene
Maximum final pressure drop: -
Maximum temperature: 40°C
Maximum relative humidity: 70%
Comments: Possibility to apply impregnated carbon
 to filter specific gases

Advantages

- Refillable
- High dust holding capacity
- Straightforward assembly

Type	Dimensions WxHxD (mm)	Carbon Type	Volume (L)	Bulk density (kg)	Airflow (m ³ /h)	Pressure drop (Pa)	# Filters/ box	Dimensions box (mm)
AC-2-12	Length: 250 mm Thickness: 25 mm Galvanized steel	M2-3	3	1.2	85	80	4	300x300x275
AC-2-26	Length: 450 mm Thickness: 25 mm Galvanized steel	M2-3	5	2.1	150	80	4	300x300x275
AC-2-26/SS	Length: 450 mm Thickness: 25 mm Galvanized steel	M2-3	5	2.1	150	80	4	300x300x275
AC-2-60	Length: 600 mm Thickness: 25 mm Galvanized steel	M2-3	6	2.8	205	75	4	300x300x275

Gasket

Type	Used for cylinders
AC-P-25	AC-2-12 & AC-2-26

This activated carbon filter is designed to adsorb small amounts of gaseous impurities (<100 ppm vol.) At higher concentrations.
 For instructions on using these filters, refer to enclosed installation and maintenance instructions.

Activated carbon filters

AC12



Specifications

Application: Museums, archives, industry

Frame: Galvanized steel

Bonding: -

Activated carbon: M-carb generic activated carbon.
R-CARB/S-CARB specific impregnated carbon used for museums and archives

Gasket: Extruded rubber

Maximum final pressure drop: -

Maximum temperature: 40°C

Maximum relative humidity: 70%

Advantages

- Compact design
- Refillable
- Low pressure drop
- High dust holding capacity

Type	Dimensions WxHxD (mm)	Carbon Type	Volume (L)	Bulk density (kg)	Airflow (m ³ /h)	Pressure drop (Pa)	# Filters/ box	Dimensions box (mm)
AC12-4/M-CARB	296x296x292	M-CARB	6	2.9	425	70	1	311x313x311
AC12-4/R-CARB	296x296x292	R-CARB	6	3.9	425	70	1	311x313x311
AC12-4/S-CARB	296x296x292	S-CARB	6	3.9	425	70	1	311x313x311

This activated carbon filter is designed to adsorb small amounts of gaseous impurities (<100 ppm vol.)
For instructions on using these filters, refer to enclosed installation and maintenance instructions.

Activated carbon filters



Activated carbon panel



Specifications

Application: Museums, archives, industry
Frame: Galvanized steel
Bonding: 2 component polyurethane
Activated carbon: M-carb generic activated carbon.
R-CARB/S-CARB specific impregnated carbon used for
Museums and archives
Gasket: neoprene
Maximum final pressure drop: -
Maximum temperature: 40°C
Maximum relative humidity: 70%

Advantages

- Robust design
- High dust holding capacity

Type	Dimensions WxHxD (mm)	Carbon Type	Volume (L)	Bulk density (kg)	Airflow (m ³ /h)	# Filters/ box	Dimensions box (mm)
AK/605x605x32-MC	605x605x32	M-CARB	12	5.3	500	2	616x616x89
AK/605x605x32-RC	605x605x32	R-CARB	12	7.1	500	2	616x616x89
AK/605x605x32-SC	605x605x32	S-CARB	12	7.8	500	2	616x616x89

This activated carbon filter is designed to adsorb small amounts of gaseous impurities (<100 ppm vol.)
For instructions on using these filters, refer to enclosed installation and maintenance instructions.

Activated carbon filters additional



APAK panel



APAK filter is an activated carbon panel filter assembled in a plastic frame, the media is coated with activated carbon powder. It is used for the filtration of gaseous particles and odours treatment. This filter comply with the ISO 16890 and is available as ISO Coarse 70%.

For further details about the APAK panel filter, contact us sales@multifilter.ie

AC-VB



AC-VB is an activated carbon assembled in a galvanized steel frame and a rubber gasket on front side. This filter is filled with coal base activated carbon 4mm pallets characterized by their high adsorption capacity. It is used for the filtration of gaseous particles in application such as museums & industry.

For further details about the AC-VB, contact us sales@multifilter.ie



