

## Activated Carbon Filters FC series

### EQUIPMENT TYPE

Dry filter for gas cleaning with adsorption process.

### APPLICATION

Remove VOC, H2S from gas with an efficiency of above 99%

### OPERATING PRINCIPLE

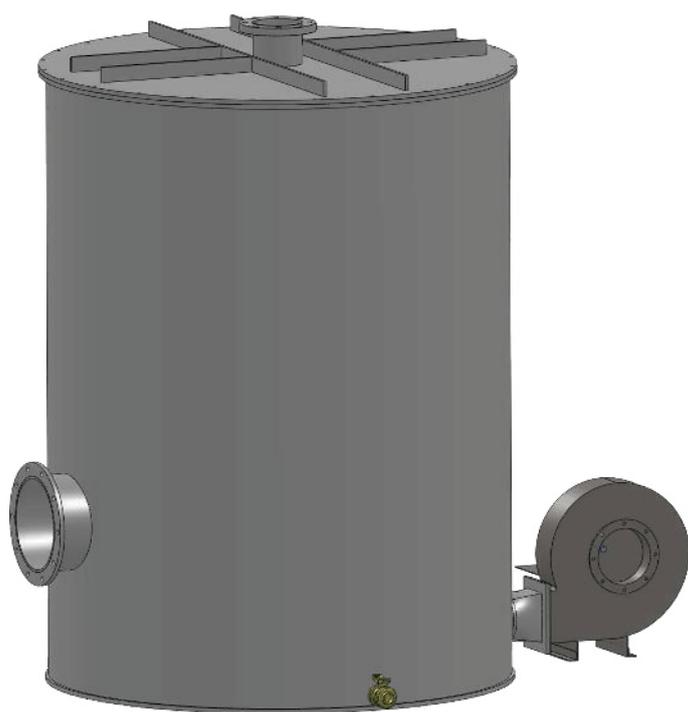
An activated carbon filter is a filter that uses a bed of activated (and/or impregnated) carbon to remove VOCs, contaminants and impurities, using chemical and/or physical adsorption.

To improve the adsorption capacity of a filter medium of a particular pollutant, it is possible to use an activated carbon impregnated with a selected chemical reagent.

An activated carbon can capture, on average, from 10% to 25% of its weight in VOCs before saturation, and then it has to be replaced or regenerated with steam. Activated carbon is used in cases where it's difficult to apply a chemical wet scrubber or a biofiltration or in cases where it's required to use a final refining treatment after a chemical scrubbing.

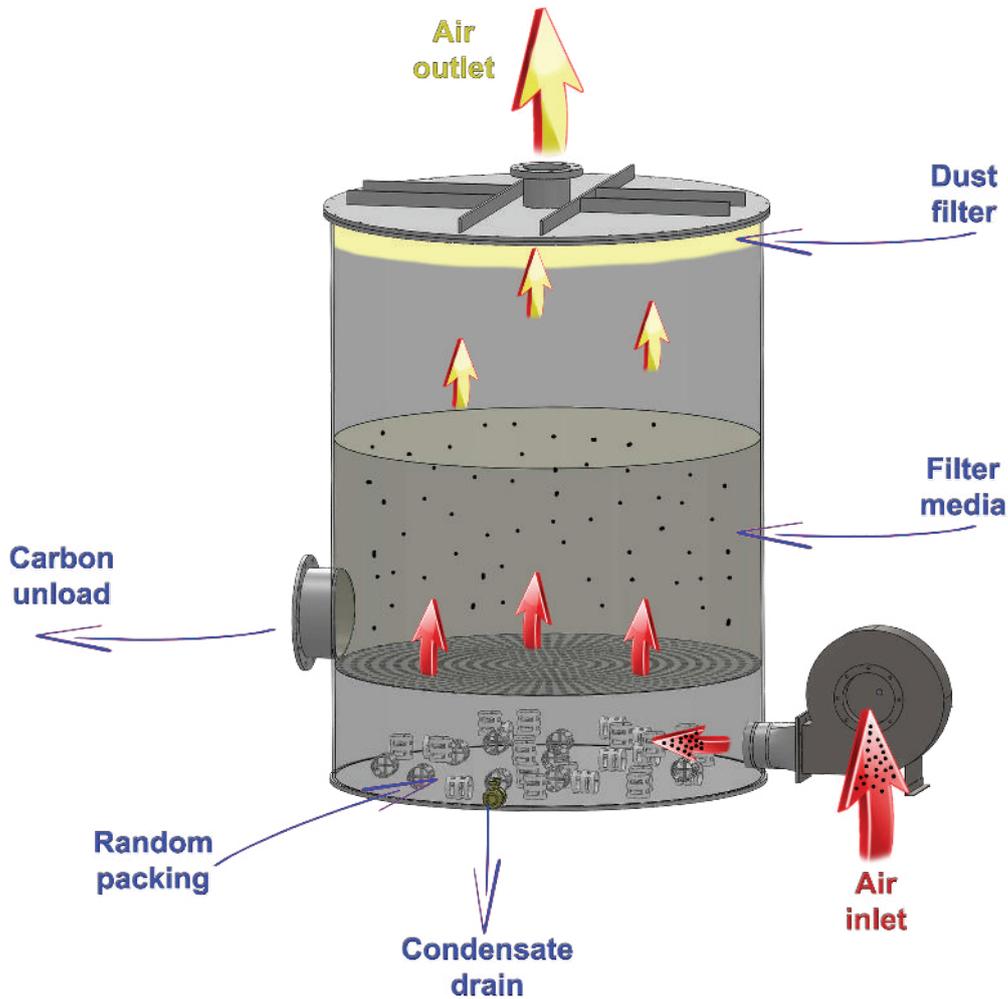
The adsorption capacity of an activated carbon for a given VOC is often represented by an adsorption isotherm that relates the amount of VOC adsorbed to the equilibrium pressure at constant temperature. To simplifying the adsorption capacity is considered as the maximum ratio between the weight of the substance retained and the weight of the activated carbon used, it is expressed as a percentage (weight in grams retained by 100 g of carbon). There are many different industrial applications for deodorization and purification gases with adsorption filters; we can help you to determine the quality and the quantity of adsorbents to use, in order to resolve your VOC emission problem.

We can design the filters using standard virgin activated carbon and impregnated chemical media for various VOCs with higher than 99% treatment efficiency.



### MAIN ADVANTAGES

- Pollutants treatment wide range
- Easy maintenance
- Low cost
- High efficiency



Gas flow m <sup>3</sup> /h	from : 50	to : 50.000
Dimensions	As required by the customer.	
Filter media	The choice of filter media is according to the process.	

## CONSTRUCTION

An activated carbon filter can be constructed in polypropylene, polyethylene, PVC, reinforced fiberglass, painted steel, galvanized steel and stainless steel AISI 304 or 316.

## OPTIONAL

- Electrical panel
- Airfan
- Inverter
- Dust and fume Collecting System