

# Adsorption Solution on Activated Carbon Activated Carbon Filter NAT

Air filtration on Activated Carbon is a technique that has proven itself in odor removal. Simple and effective, this method allows the removal and adsorption of multiple gaseous pollutants.

Activated Carbon by the adsorption process is able, due to its microporous structure, to trap harmful VOC-type molecules (Volatile Organic Compounds) or corrosive and odorous molecules present in wastewater treatment plants (NH<sub>3</sub>, H<sub>2</sub>S, etc.).

In order to increase the adsorption efficiency of pollutants, Activated Carbon may be impregnated with reagents like KOH or others depending on the type of gas to be treated.

Treatment with Activated Carbon is mainly used for public or industrial water treatment facilities (pumping stations, buffer/storm basins, sludge storage and processing).

Our NAT range is suitable to indoor and outdoor.

Processed flows up to 6,000 m<sup>3</sup>/h  
Efficiency above 99%

Upon request for flows above 6000 m<sup>3</sup>/h

Thermoplastic or steel construction  
suitable for harmful and corrosive compounds

Several possible choices  
of sizes, regenerative adsorbant materials, etc.

Requires little maintenance  
excluding replacing the Activated Carbon



Outdoor NAT / Pumping station



Outdoor NAT / WWTP

## Operation

The operating principle of the NAT is based on the adsorption of pollutants through the use of Activated Carbon. Thus the polluted gas passes through an adsorbent medium consisting of Activated Carbon pellets.

The effluent to be treated is injected under the Activated Carbon.

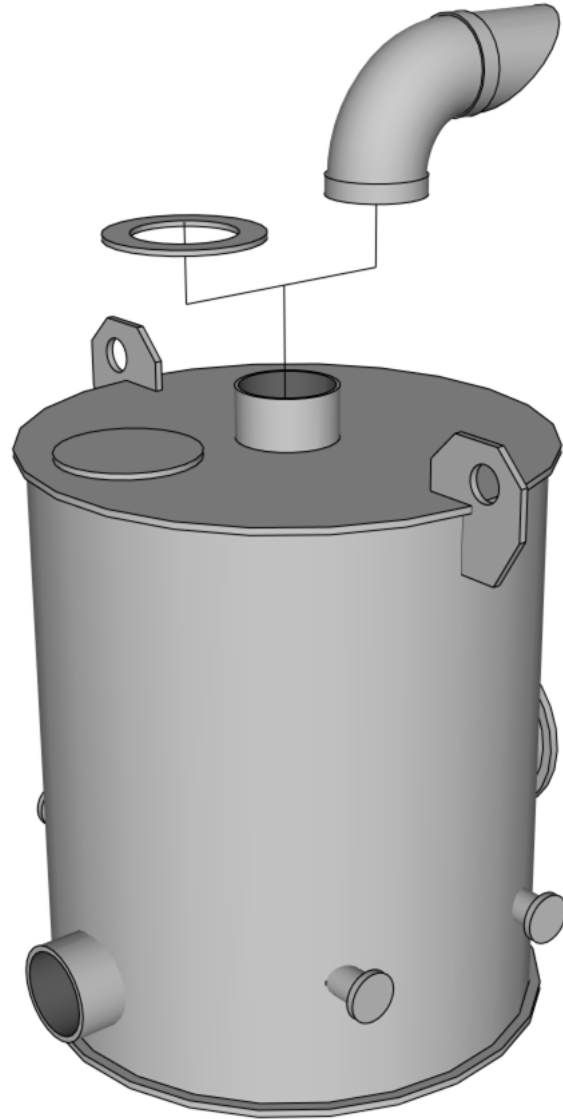
The air flows through the adsorbent medium in a uniform manner through the use of a grate with calibrated openings according to the flow.

The air is purified and then discharged to a remote outlet or directly into the atmosphere.

When the Activated Carbon has reached saturation, it is extracted via the discharge hatch and subsequently retreated.

Our maintenance department offers complete maintenance packages for your NAT including:

- the removal and reprocessing of the used Activated Carbon;
- the supply of replacement Activated Carbon;
- reloading the TCA.



Nota : the unloading hatch is optional



**Our standard range: a full cylindrical NAT range in thermoplastic.**

Other designs of Activated Carbon Towers available ( TCA – TCA-R – TCA DE...) to complete our Activated Carbon filter solutions and reply to specific constraints such as: industrial processes, footprints, flows...

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