

Let our innovation get rid of process or fugitive odors...

with low operating, replacement and maintenance costs.

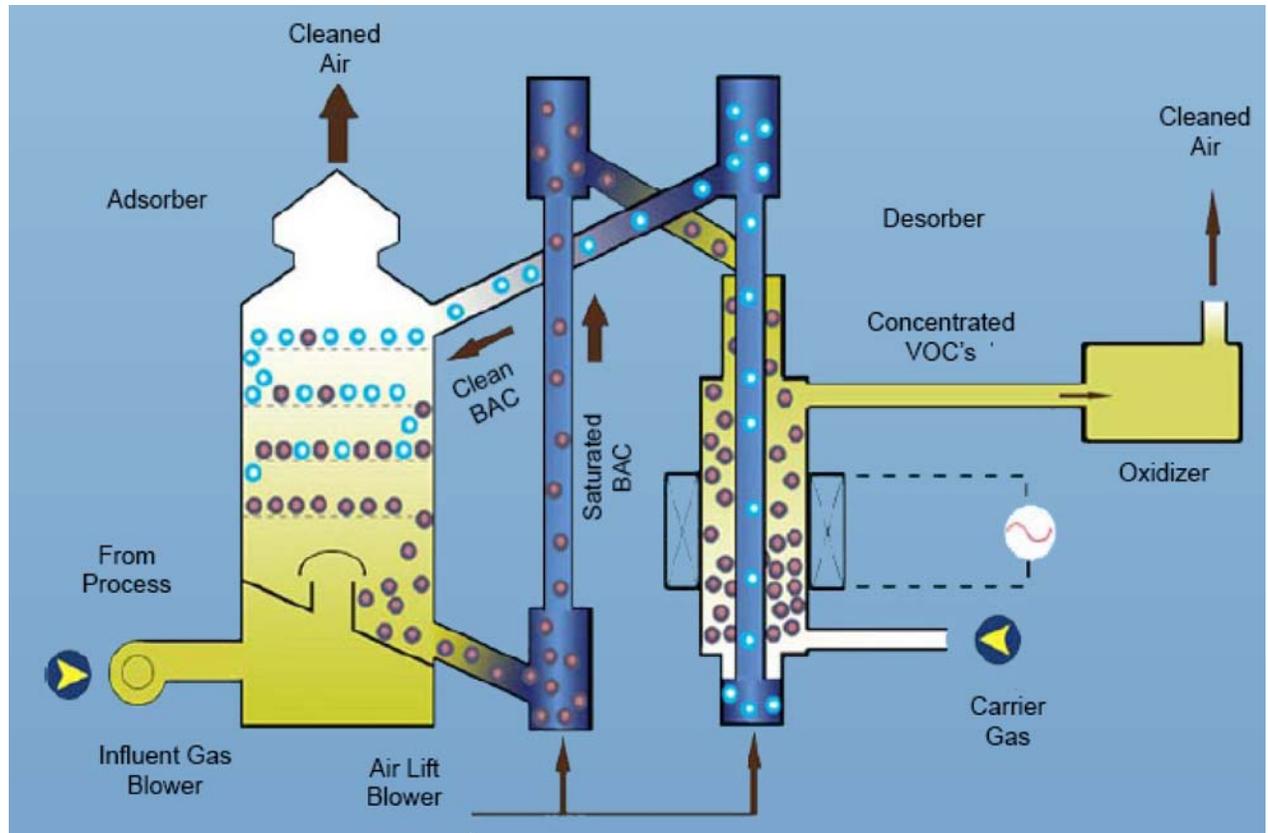
*NacahTech is dedicated to help users resolve their process and environmental issues to reach their plant potential most effectively.*

## Looking to get rid of an odor problem? (Or low concentration VOC's?)

Nacah Tech concentrates compounds from large "air" streams at a rate up to 500:1. The compounds are then destroyed in an extremely small thermal oxidizer with very little, if any auxiliary fuel or power needed.

Nacah Tech solves these odor issues by providing a complete system with several components; collection fan, carbon adsorber, desorber, (concentrator) thermal oxidizer, preheater, and exhaust system. We collect the fume, concentrate the odorants/VOC's (using unique fluid bed adsorption by EC&C), and combust them at 99%+.

Lower weight, smaller footprint, lower installed cost, no residuals, higher concentration (500:1) and lower pressure drop (3"wc) reduce operating costs. Contact Nacah to determine if this or other proven technology (i.e. RTO) is best for you.



**NacahTech 412-833-0687 [www.nacahtech.com](http://www.nacahtech.com)**

# FBC Systems

## How the technology works

Process air or odor sources are directed to the fluidized bed adsorber. The air passes through the adsorber fluidizing bead activated carbon adsorbent (BAC). The orientation provides counter-current VOC removal with high volume surface area beads, thus optimizing efficiency. Clean air exits the adsorber top, while "spent" BAC collects in the bottom hopper.

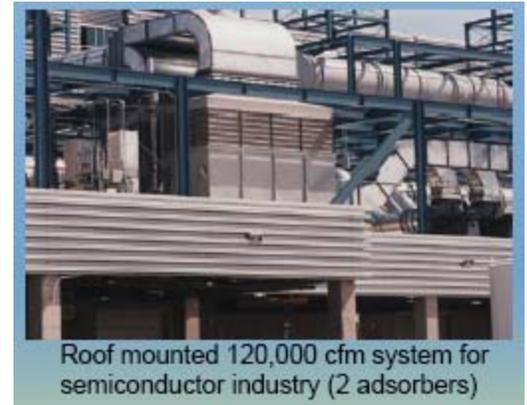
The spent BAC is pneumatically transferred to the top of the Desorber. In the Desorber, the BAC moves downward as either a packed or fluidized bed. Heat is applied by one of several options, to vaporize the VOC's from the adsorbent. As the VOC's are released in highly concentrated form, a low flow of carrier gas conveys the concentrate out to a final treatment device which is normally a Nacah Tech thermal oxidizer. This thermal oxidizer is very small due to the very high (highest known on the market) concentration ratio which often permits the oxidizer to be self sufficient from the VOC heat input. The counter-current flow of adsorbent and carrier gas optimizes the recovery capacity of the BAC for VOC's. The concentration ratio is a function of the volume of the original process gas compared with the volume of the Desorber carrier purge gas.

## Technology and Comparison

- o Highest concentration ratio of any standard VOC control technology
- o Lowest equipment price of available technologies on an installed cost per cfm basis
- o Lowest operating cost of available technologies
- o Small footprint
- o Lower overall weight
- o Meets increasingly stringent air quality requirements
- o A packaged system may be provided for easy engineering and installation.



65,000 cfm paint line application



Roof mounted 120,000 cfm system for semiconductor industry (2 adsorbers)



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