



Biological and chemical odors treatment

Odor neutralization

Application 1: Pharmaceutical sector

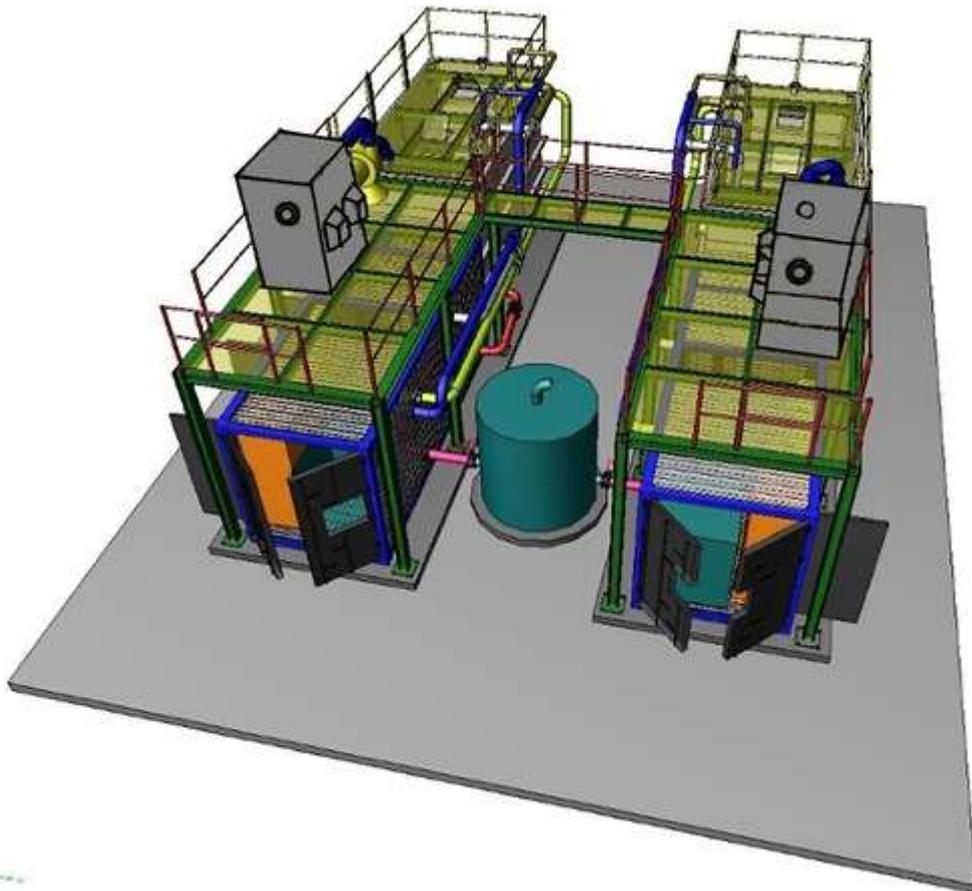
Our customer is a world leading company operating in chemical and pharma field. It constantly tries to improve the performance of its customers through the creation and development of adsorbents, chemical intermediates and additives to optimize water resources. The company's goal is to solve all the problems related to water scarcity, quality, productivity, environment and energy. In the specific case, the company contacted Tecnosida® asking for the construction and installation of an odor abatement system to be placed within a MBR waste water treatment facility used for filtration of sludge water coming from pharmaceutical production lines.

Activated carbon filter for waste water odor treatment:

In line with the customer's requests, Tecnosida® proceeds to the construction of a plant composed of the Chemsorb - activated carbon filter® able to adsorb volatile compounds , both organic (hydrocarbons, solvents) and inorganic (hidrogen sulphide, and others mercaptans), through the connection to the centrifugal fan. In detail:

- the purifier is made in a rectangular version and with AISI 316 stainless steel sheet, particularly resistant to the action of chemical and atmospheric agents. It ensures the adsorption of pollutants through the use of activated carbons: carbon which have been subjected to an activation process that has made them porous and able to retain odorous substances inside them. Given the nature of the pollutants, the Chemsorb® filter has been realized in ATEX version and equipped with breakage panels able to protect environment and operators in case of explosion;
- the centrifugal fan used is directly coupled and made of AISI 316 stainless steel

Chemsorb® was developed in compliance with the reference BAT (AC.RI.01) and proved to be the optimal solution to customer problems as:



- It has allowed to reduce emissions within the limits established by law;
- It is made of materials resistant to chemical and atmospheric agents;
- It is easy to use

Application 2: Lombardy water service

The customer is a public body that manages the integrated water services at a provincial level for a large part of the Lombardy region.

The company has contacted us to solve a problem as simple as annoying: the emission of unpleasant odors resulting from wastewater treatment and sludge dewatering. The described problem occurs at a purification plant located in the province of Monza and Brianza.

Public body requested Tecnosida® for a rapid and economical solution to reduce the problems encountered and prevent the significant number of complaints coming from the urban areas around the plant.

Odor treatment in the Italian public sector:

The proposed solution was based on the specific requirements and has proven to be effective in the field. To effectively reduce the foul-smelling compounds, it was necessary to intervene in the gaseous phase. Considering the limited budget, the technique proposed was the only possible one, which consisted of spraying products designed to disintegrate the odorous molecules and/or to cover the remaining scent.

DEODORY is a custom nebulizer with double dispersion nozzles, which has proved to be very effective in these applications. It is applied to the stack outlet and/or the extraction system and nebulizes selected deodorant products, injecting them in the form of a very fine aerosol. The perfect dispersion of micro-droplets in the gas flow requires the use of an air nozzle with a high degree of nebulisation.

The nozzle is supplied with the diluted product by a special dosing controller that regulated both the nozzle flow rate and the degree of nebulization. DEODORY is manufactured using only special steel materials to minimize the maintenance required.

The advantages of this product are:

- Reduced investment and management costs;
- Ease of installation - high management flexibility;
- No residues to be disposed of.

