

Success case in the elastomer industry



Multinational manufacturer of elastomers for thermal and acoustic insulation.



Lombardy, Italy



Production of high toxic gas emissions, with high concentrations of chloroparaffins as a result of the manufacture of elastomeric insulators.



3 months

Customer needs

- Purification of toxic gases emitted, in order to reduce the concentrations of the chemical substances that are mostly contained by chloroparaffins.
- Reduce the high estimated costs of € 1,200,000 / year, of the current conventional system for gas purification, based on filters and chemical neutralization processes.
- Eliminate the risk of proliferation of dangerous emanations for the neighboring population.

The solution

The solution consisted in replacing the toxic gas purification train with a gas flushing system, combined with an AMAPEX biological solution that allows to eliminate the polluting toxic gases and significantly reduce the high costs of the previously used cleaning system.

Gas cleaning is carried out by passing through a cold plate chamber that condenses the vapors on a circulating water tank.

Once the gases are liquefied, dissolved or dispersed in water, it is treated.

The system consists in applying a solution that contains a mixture of bacteria and nutrients specifically designed for each client. The bacteria are activated very quickly and efficiently, metabolizing the pollutants presents in the water.

For the multiplication of bacteria, an intelligent unit has been designed that, reading the parameters of the waters to be treated, activates the biological mixture to provide it with optimized activity.

Results

- Elimination of 96% of polluting toxic gases.
- 90% reduction in treatment costs.

Applications

This AMAPEX solution can be successfully applied in any manufacturing plant for elastomers, technical rubbers or alike that emit toxic pollutant gases to the exterior.

Before and after of the treatment of purification of water with Amapex solution



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