



## AirAdvanced® Treatment Biocassette

Plug & Play Solution for the Treatment of Odor and Hydrogen Sulfide (H<sub>2</sub>S) Emissions

### DESCRIPTION OF THE TECHNOLOGY

**Advanced biofiltration** can be considered the **Best Available Technology (BAT)** for treating odor emissions, typically achieving **final odor concentrations below 1,000 uo<sub>E</sub>/m<sup>3</sup>**, unequivocally ensuring compliance with the most stringent odor emission limits.

Thanks to the **inoculation** of specific microorganisms in the advanced biomedium, it can simultaneously treat nitrogenous, sulfurous, and VOC compounds, guaranteeing very low final odor concentrations, below the values set by authorities through IEA (Integrated Environmental Authorizations) at each facility.



### ADVANTAGES AND BENEFITS OF THE SOLUTION



**High deodorization efficiency** due to the inoculation of specific microorganisms.



**High efficiency** from the first day of operation.



**Lower intrinsic odor** of the biomedium, as it is made of inorganic material that does not degrade.



**Low pressure drop**, which means that the energy costs for ventilation are almost half of those of other systems.



**Plug & Play**, with quick and easy installation.

Additionally, it is worth noting that advanced biofilters do not require chemicals, control instruments, or recirculation or dosing pumps, enabling **simple and cost-effective control systems**. Furthermore, the process effluents are not considered toxic or special, allowing for easy management.

## KEY DATA

**4,2 – 25 m<sup>2</sup>**

**Different Biocassette sizes** for various treatment flow rates, with the possibility of using several in parallel.

**>300 ppm**

The system can handle **H<sub>2</sub>S peaks** above 300 ppm.

**> 95 %**

**Odor removal efficiency and H<sub>2</sub>S removal efficiency**

**> 99%**

**Operational availability.**

## DESIGN AND EFFICIENCY DATA

The Biocassette is a plug-and-play solution based on Advanced Biofiltration. It is a solution with minimal and simple installation, which treats odour and H<sub>2</sub>S emissions with very low water and electricity consumption.

The biocassette system doubles the usual residence times in biofilters, thus achieving a high efficiency in the elimination of H<sub>2</sub>S and odorous load. The confined collection of the sources is channelled to the system by means of a fan installed in the equipment, thus achieving excellent purification results.



The Biocassette is made of a fibreglass sandwich panel with polyurethane foam insulation inside. The contaminated air is introduced at the bottom of the system and by means of an upward flow is purified through the filter medium. The biomedias is humidified with sprinklers located on its surface, using mains water connected to the bottom of the equipment.

Each Biocassette system is specifically designed for the flow rate and concentration of odor and H<sub>2</sub>S in the stream, setting the optimum air flow rate in each case.

The Biocassette system is able to reduce H<sub>2</sub>S with 95% efficiency by accepting peaks above 300 ppm H<sub>2</sub> S at the inlet.

## INDUSTRIAL APPLICATIONS

The Biocassette from SUEZ AIR & CLIMATE reduces emissions in wastewater pumping stations and other facilities with relatively small volumes of contaminated air and high concentrations of H<sub>2</sub>S.

This system can also serve as a pre-treatment system, for example, in biogas plants.

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### AIR & CLIMATE

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