

### CLIENT'S NEED

Odor abatement  
H<sub>2</sub>S abatement (sulphuric acid)

### TECHNOLOGY EMPLOYED

Biofilter and washing tower

### POLLUTANT ABATEMENT

Odours ≥ 98%  
H<sub>2</sub>S (sulphuric acid) - ≥ 99%

### STRENGTHS

Energy efficiency  
Solid structure

## APPLICATION

Abatement plants for odours coming from wastewater treatment

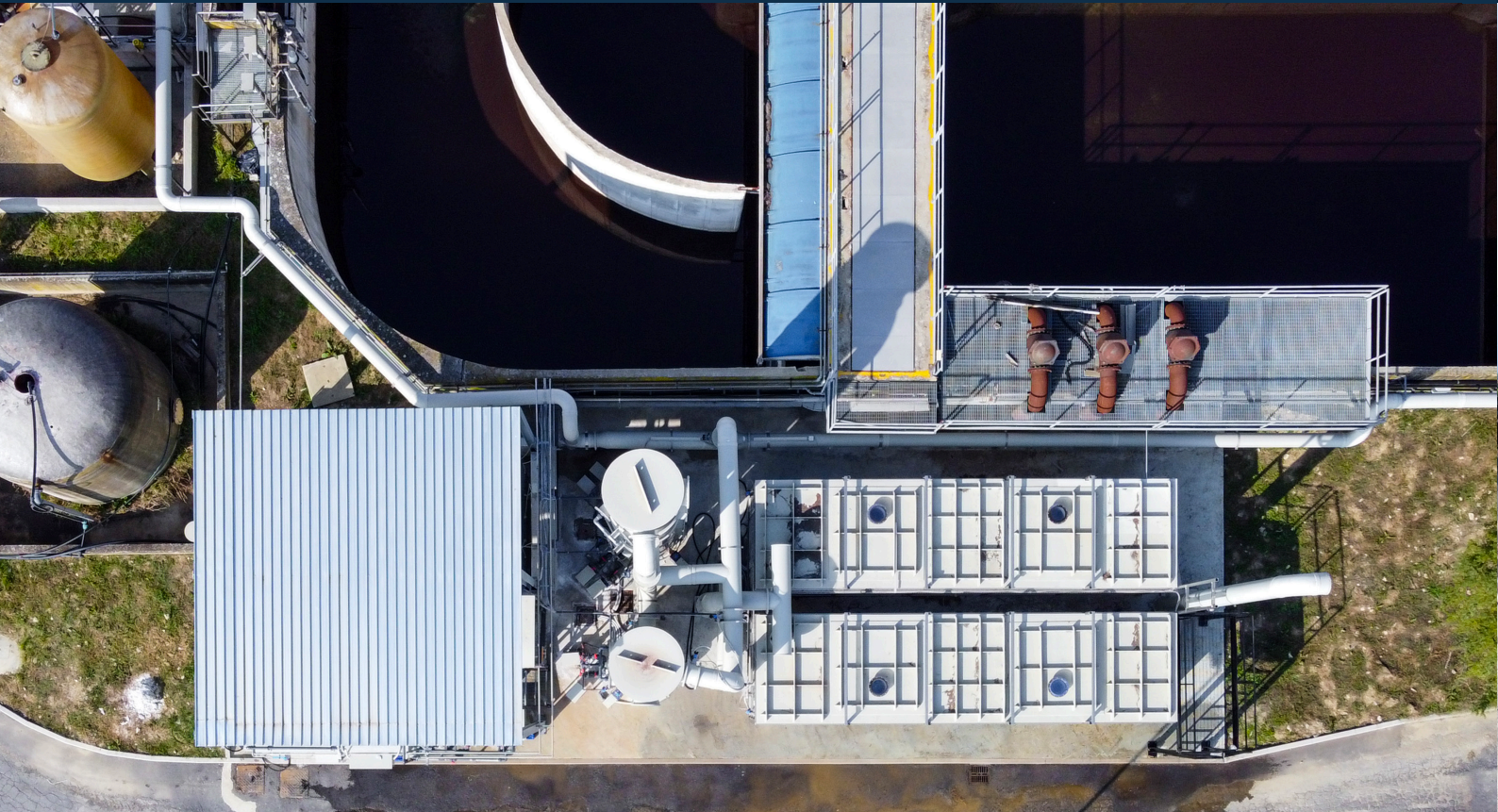
The treatment of **industrial and civil wastewater** is an industrial process fundamental for the safeguard of the environment and of the people living nearby. The wastewater must undergo a purification process, both as a function of recycling and to respect environmental safeguard parameters. **Some processes** or commonly used **machineries** may give rise to consistent **malodorous emissions**.



PURIFICATION

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## CONTEXT

In the majority of **wastewater treatment plants**, substances responsible for bad smells are **ammonia (NH<sub>3</sub>)**, **hydrogen sulphide (H<sub>2</sub>S)** and **Mercaptans (RSH)**. Said substances are **perceptible to human's sense of smell** even in extremely low concentrations.

## CHALLENGES

**Limited spaces**, the high performances requested, the **presence of other plants** to interact with, the interferences and the **necessity to maintain the purification plant working 24/24h** are just a few of the challenges that BMB plants must face. In this case, it was necessary to obtain an **almost total removal efficiency**, combined to an easy and e plant management that was easy and economically convenient.

# CASE STUDY

## wastewater treatment plants



### SOLUTION

The polluted air stream passes through **two wet washing towers (scrubber)** capable to reduce the acid compounds (hydrogen sulphide  $H_2S$ ); odours are subsequently removed by a **biofiltering unit**. BMB solutions' high level of automatization guarantees:

- **Remote monitoring** of the plant with signals for the maintenance thresholds and **alarm system**
- Total control of process parameters with possibility to implement **customized instruction and operations based on customer needs**
- Detection of pollutant agents with possibility to **modify the plant through exclusion of one or more treatment stages**, to optimize management cost

### RESULTS

- Odours reduction:  $\geq 98\%$  reduction
- $H_2S$  (hydrogen sulphide) reduction  $\geq 99\%$
- Management and investment cost

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