

CLIENT'S NEED

Abatement of odours and NH_3 emissions deriving from production waste

TECHNOLOGY EMPLOYED

Washing Towers (Scrubber) and closed biofilter modules

POLLUTANT ABATEMENT

Odour removal efficiency $\geq 98\%$
 NH_3 abatement (ammonia) $\geq 99\%$

STRENGTHS

Energy efficiency and
Reduction of management costs

APPLICATION

Odour abatement plants for food industries

Some **production scraps** typical of the industrial sector may give rise to **odour and disposal problems**, whose solution is often highly costly, both economically and in terms of time and resources. **Ejections, malodorous waste** and undesired by-products are just a few examples of odour sources whose associated problems get daily resolved in BMB.



PURIFICATION

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CONTEXT

In the **food sector** there are multiple odour sources, yet animal ejections are undoubtedly among the most complex and tedious to manage. As a matter of fact, **livestock ejections** are the cause of odours and represent a serious environmental issue, as the **regulatory framework** suggests.

The high concentration of **ammonia NH₃** and the **persistent and unpleasant olfactory trace** represented the main problematic BMB took charge of.

CHALLENGES

- Guarantee a **high odour and NH₃ abatement system** and obtain a successful aspiration of production rooms
- Create a remote controllable plant capable to work with the **simultaneous functioning of multiple production machines**
- Create an easy access to ordinary and extraordinary maintenance
- In general, create a plant easy to install, manage and maintain.



SOLUTION

Engineering, design, and construction of a **pollutant abatement plant to be locally installed** according to the following scheme: the air full of odours and pollutants is sent to a **wet scrubber washing** tower that reduces the ammonia excess rate. Inside the scrubber, the **polluted air gets washed by a stream of an aqueous solution**, added with specific reagents allowing the **reaction of ammonia neutralisation**. In this phase, the choice of the reagent and the monitoring of process parameters are fundamental for the plant's good performances. Downstream the wet scrubber, a **battery of biofiltering modules** guarantees odour removal before the **chimney evacuation**

RESULTS

- Odour removal $\geq 98\%$
- Ammonia abatement $\geq 99\%$
- Environmental authorization from regional entity
- Remotely controlled plant

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