

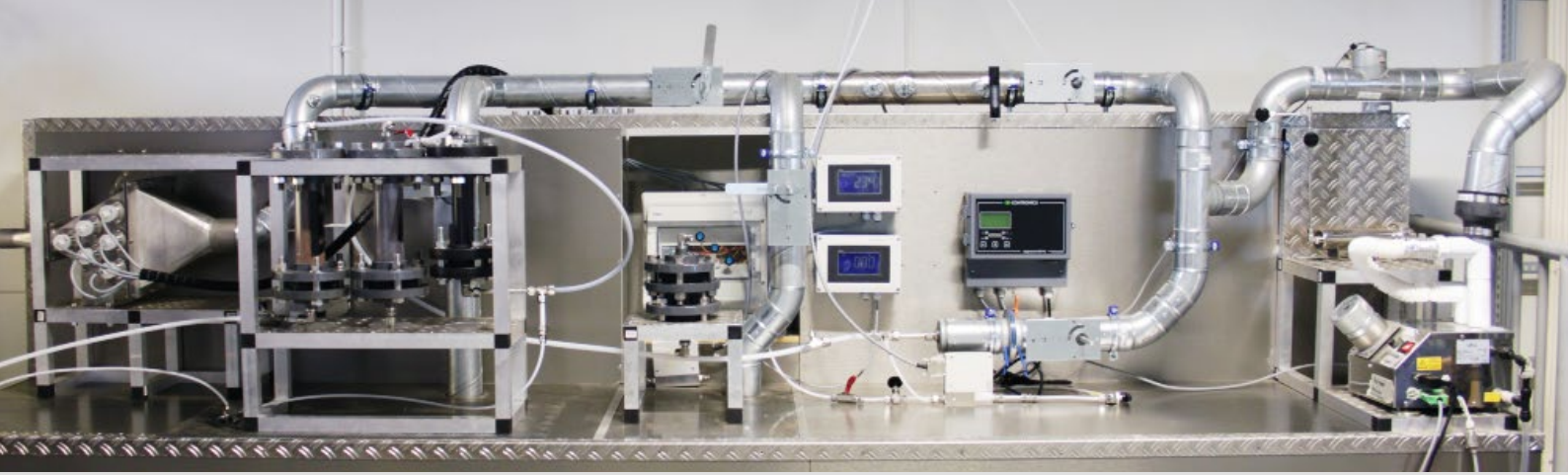


Tailored
industrial air
treatment
pilot

**There are no
shortcuts to high-
efficiency industrial
air treatment**

**Efficient air treatment starts with a pilot
project**

MELLIFIQ



We focus on treatment effectivity, filter lifetime and total operation cost over time. The treatment methods are mainly combinations of ozone, UV and filter material. Other parameters highly affecting the tests and the final treatment solution are moisture level and concentration and type of of pollutants in the air.

THERE IS A BEST TREATMENT SOLUTION. YOU JUST HAVE TO FIND IT.

Effective treatment of industrial air emissions is a challenging task. Each process is unique and so are the emissions coming out of the stack. A standard treatment system cannot solve every case. This is especially true for large air flows with tough requirements.

Meticulous in-house pilot tests are needed to find the optimal air treatment solution. Placed in our facilities in Stockholm we have one of the most advanced test skids for evaluating pilot solutions for industrial air cases. It can test various conditions, representative of many industrial cases, using the most advanced oxidation techniques in a modular approach.

FIVE STEPS TO A TAILORED FULL-SCALE SYSTEM

We offer complete project management and execution throughout the pilot project.

AIR ANALYSIS

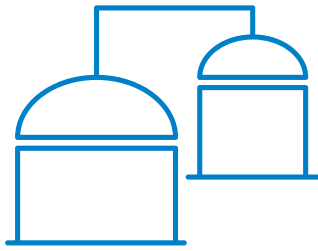
We analyze the air emissions of the real industrial case. Using state-of-art equipment, we can detect even the weakest traces of pollutants. Whether they are VOC, H₂S, ammonia or particles, we have the right instruments and methods.

Knowing the concentration of the pollutants is fundamental, both for setting up the pilot study and for designing the full-scale solution.

SETUP

We reproduce the field conditions in our in-house facilities based on the air analysis. The air flow is adjusted to be representative, matching also humidity and temperature values. We then feed the air pollutants from a gas mixture specially prepared with the same type of compounds found in the real case.

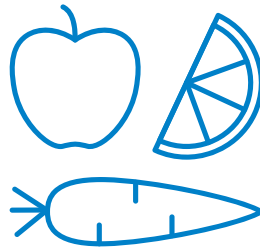
Before each test we start up the system, checking the proper functioning of each component.



BIOGAS INDUSTRY

The treatment of air emissions from biogas plants is complex due to the diversity of the processed waste. As every case is different, the solution should be carefully tailor-made, making the biogas industry a perfect example of where pilot projects may be suitable.

Examples of compounds that can be treated: H₂S, mercaptants and ammonia

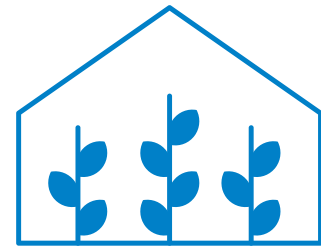


FOOD PROCESSING INDUSTRY

Air emissions from the food industry are one of the most difficult to treat, due to the high odor content.

The accuracy of the design derived from pilot studies ensures excellent results using the most cost-effective system - even with the toughest requirements.

Examples of compounds that can be treated: aldehydes, aromatics and fatty acids



GREENHOUSES

Greenhouses are another example of the efficacy of the pilot projects. They often release odors with a concentration and scent that change with the growth stage. The treatment method must address all conditions, making pilot studies the most effective way to ensure continued compliance with laws and regulations.

Examples of compounds that can be treated: limonene, pinene and myrcene

FINDING THE OPTIMAL SOLUTION

This step is the core of our method. We run a large number of experiments, evaluating the performance of each technology, in relation to the others. Special attention is given to the effectiveness and the cost-efficiency of the process. Since the pilot project may result in the design of a full-scale solution, we also consider the costs for the investment and operation of an installation.

REPORT

All information collected up to this step is processed and presented in a detailed report. The effect of each pilot treatment technology – ozonation, AOP or catalysis – is evaluated, presenting how the customer requirements can be met. The report includes conclusions generalizing the pilot study, connecting back to the real industrial case.

PROPOSAL

If requested by our customers, we include a proposal for the solution of the industrial plant. Using the results from the pilot study, the design of the full-scale purification system becomes easier, as many important variables are investigated during the experiments. As a result, each parameter of the solution is fine-tuned, meeting the requirements with the lowest investment and operating costs.

We are confident that we will deliver what we promise, as we have already investigated the proposed solution.

About Mellifiq

Mellifiq is a multi-awarded environmental service company group, that has since the early nineties evolved into a world leading system and solution provider with multiple groundbreaking applications for industrial, municipal, and real estate clients. We supply cutting-edge technologies to manage the most sophisticated air, water, and energy challenges.

Mellifiq offers a complete range of air and water treatment technologies and solutions across multiple industries such as processing industry, energy sector, food and beverage, pharmaceutical, wastewater treatment and commercial real estate.

Mellifiq offers strong and renowned brands, such as Ozonotech, Nodora Water Maid, Saniray, Axolot and world-class engineering services combined an excellent track record of more than 40 years of innovation. We help our clients achieve the most efficient and sustainable solutions while creating the maximum value for their businesses.

With several business units across Europe, Mellifiq is headquartered in Stockholm where research and development, production, QA and certification all take place. Our unique technology and our extensive expertise have made us the Center of Excellence for the world's most complex projects, and a global player with installations on all six continents.

Everyday millions of people rely on our solutions for ventilation, disinfection, sanitation, and odor control. We are committed to raising the bar for the concept of clean and the industry standard for engineering, technical services and general contracting.

For additional information, visit our website at www.mellifiq.com

