



ODOR
REDUCTION

Fresh garbage rooms using ozone

LOW STARTING COSTS, EASY INSTALLATION, MINIMAL OPERATING COSTS

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ODOR REDUCTION



Garbage and other waste often cause odor problems in garbage rooms.

NOW IT IS EASY TO KEEP GARBAGE ROOMS FRESH

Garbage rooms and similar spaces often have odor problems for natural reasons. Meanwhile the increased demands for waste separation mean that the residents stay longer in the garbage room and the intervals between the garbage collections often increase. The combination means that more and more people are exposed to hygiene and odor problems when they sort their waste.

Previously, cooling has been a frequently used method when storing organic waste. Cooling units do not only have a high investment cost, but also high energy and maintenance costs. The Swedish government requirements to use cooling was removed in 2009. Another method was recently introduced, using bacteria, but this method also has high costs over time.

Lately, the use of ozone to purify air and water has increased sharply for industrial purposes, in municipalities, restaurants and real estate around the world and so has the use of ozone for purifying garbage rooms in residential properties.

The ozone is produced on site by the oxygen in the ambient air. The raw material is free and, together with the very low electricity costs, this means that all cleaning solutions with ozone meet high demands for durability and low environmental impact. Ozone cleaning also provides triple effect. The odor in the air is minimized, the source of the bad smell is attacked and new mold formation is counteracted. This results in greatly improved sanitary conditions in the garbage room at a very low cost.



The ACT 3000 ozone generator is mounted on a sturdy wall bracket and the ozone production control is easily accessible.

Ventilation 5 liters/second
and sqm floor area



Ozone generator

Main switch

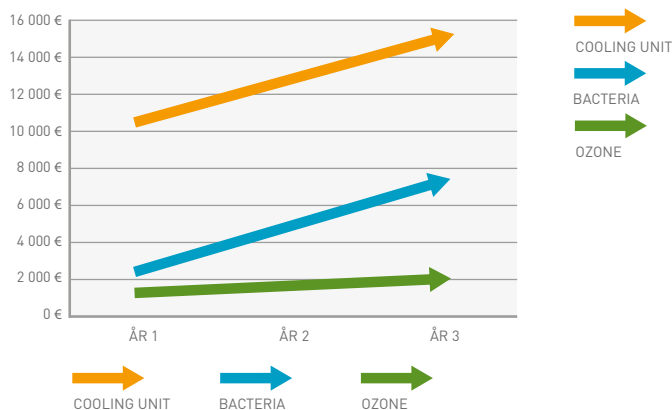
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TOTAL COSTS FOR THREE TREATMENT METHODS (EUR)

	Cooling	Bacteria	Ozone
Cooling unit/air purifier	1 100	0	795
Cooling walls (15m)	6 000	0	0
Installation	850	0	190
Electricity/year*	2 020	120	11
Refilling costs/year	0	2 000	0
Service costs/year	400	350	295
Costs year 1	10450	2 470	1 290
Costs year 1+2	12 500	4 940	1600
Costs year 1+2+3	14 570	7 410	1900

*The estimated energy consumption of the cooling unit is 3.3 kW, the bacterial pump 0.2 kW and the ACT 3000 (ozone) 0.018 kW. The costs are calculated on a price of 0.07 EUR per kWh.

INSTALLATION AND OPERATING COSTS FOR A GARBAGE ROOM OVER THREE YEARS



14 570 €
Estimated costs over three years of using a cooling unit.

7 410 €
Estimated costs over three years of using bacteria.

1 900 €
Estimated costs over three years of using ozone

The purpose of the calculation above is to show the difference in installation and operating costs for three different garbage room solutions; cooling, bacteria and ozone. The calculation shows the installation cost and operating costs for three years. Already at the time of installation, 7 000 EUR can be saved if, instead of cooling units and cooling walls, ozone purification is chosen. In addition to the installation cost, an annual saving of approximately 200 EUR in energy and service costs is obtained. A bacterial solution that requires continuous replenishment of bacteria often has a low installation cost, but the operating cost is already high during the first year.



BENEFITS

FIXING THE PROBLEM

Instead of delaying bacterial growth and camouflaging bad odor, the ozone attacks the source of the odor. Bacteria and microorganisms are effectively reduced, preventing the onset of foul-smelling substances.

LOW OPERATING COST, IMMEDIATE EFFECT

Ozone is produced as soon as the mains voltage is connected. An improvement of the room's hygiene is therefore immediately noticed. Nothing needs to be replenished continuously, the air needed to generate ozone is taken directly from the surroundings. The operating costs are low, approx 30-70 euros per year for electricity.

POWERFUL AND ENVIRONMENTALLY FRIENDLY

The ozone element in the ACT 3000 is powerful and continuously produces sufficient amounts of ozone with low energy requirements. Odors in garbage rooms and waste sorting stations are effectively reduced.

EASY INSTALLATION

The ozone generator is mounted on the wall using a specially designed stainless steel rack. The generator needs minimal maintenance and doesn't require training of staff.

GOOD VENTILATION

The Swedish guidelines say that the exhaust air flow in waste areas must be at least 5 liters / second and square meters of floor space to reduce the risk of odor. A cooling unit therefore needs to add more cooling to keep the temperature at the right level. An extra cost that does not occur with ozone.



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 Ozonetech, Nodora and Water Maid, 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

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