

**Restaurant L'Avventura**

A Mellifiq reference project

# Final odor treatment and energy recovery in new city center nightclub

**No resident complaints,  
reduced energy cost and less  
environmental impact**

**MELLIFIQ**

## L'Avventura, Stockholm, Sweden

L'Avventura is situated in the heart of Stockholm. The former cinema from 1927 have been rebuilt and restored by Sweden's largest entertainment group Stureplansgruppen into a luxury establishment – a nightclub with fine-dining and two bars. The Italian restaurant strives to bring “the Italian” to a new level with the aim of capturing the essence of everything Italian. L'Avventura opened in early 2018.

### Facts

Name:	Restaurant L'Avventura
Location:	Stockholm city center, Sweden
Industry:	Restaurant, kitchen exhaust
Purpose:	Odor removal, energy recovery and increased fire safety
Performance:	Minimum 80% energy recovery, 99.8% odor removal, and highly reduced risk of fire

### Solution:

#### Ozonetech RENA Kitchen

#### Solutions

Units:	1
Dimensions (HxWxD):	970 x 750 x 265 mm
Input power:	1.75 kW
Noise level:	49 dB

#### Nodora air treatment system

Units:	6
Dimensions (HxWxD):	2,070 x 3,480 x 1,520 mm
Pressure drop:	80 Pa

## The problem

The projected kitchen exhaust air was to be led into a residential area – a courtyard where the apartment balconies are located just above the restaurant. As the exhaust location had been noticed by the residents, and

being a top class player in the Swedish entertainment business, Stureplansgruppen was determined to eliminate the risk of complaints and negative publicity.

## The solution

To handle the odor problem, Stureplansgruppen contacted Mellifiq. Ozonotech RENA Kitchen Solutions together with our newly developed catalytic mixed-bed filter Nodora was the perfect match for the mission. First, the Ozonotech RENA system continuously removes grease from the kitchen exhaust air by injecting ozone in the kitchen duct. The treated air then passes through Nodora, eliminating odors and purifying the air. The hot, cleaned air, then passes through the combined heat exchanger and exhaust fan. Thanks to Ozonotech's RENA and Nodora, the need to maintain and manually clean the heat exchanger and the exhaust fan is minimized. Finally, the purified exhaust air is discharged. Nodora is a modular system with an extremely low pressure drop (i.e. low energy consumption) given its treatment capacity. Nodora also exhibits a high ratio between cleaning capacity and footprint – making it suitable when purification requirements are high, but the space is limited.



*The point of discharge of exhaust air is close to a courtyard and the residents' balconies.*

## Evaluation

After installation and first tryouts of the kitchen loads, the kitchen exhaust was evaluated using healthy standard human noses. The result was very satisfying, an odor free exhaust. To confirm the perceived results, analytical measurements were conducted, processed and analyzed in terms of overall performance and odor removal efficiency. The measurements showed an odor removal of 99.8 %, at an overall pressure drop of only 80 Pa. In addition, since the heat is continuously recovered, the overall energy consumption has been reduced. Also, not to forget, due to the grease-free kitchen ducts, the risk of a duct fire is now close to zero.



## RENA Kitchen Solutions

The high-performance and remote monitored Ozonetech RENA system is oxygen-fed and liquid cooled. This is the only way to produce large quantities of concentrated ozone stable over time – which in turn is the only way

to continuously and automatically remove grease from kitchen ducts with an absolute minimum of maintenance and replacement of parts.



*In this installation a total of six Nodora modules were used in a 3 x 2 integrated combination. Nodora is the most efficient air filtration solution on the market, carefully designed to minimize air flow pressure drop and always consume 100% of the active filtration media.*

# 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 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](http://www.mellifiq.com)

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