

CASE STUDY
L'AVVENTURA

Final odor treatment and energy recovery in new city center nightclub

NO RESIDENT COMPLAINTS, REDUCED ENERGY COST AND LESS ENVIRONMENTAL IMPACT

 **ozonetech.**

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.

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

THE SOLUTION

To handle the odor problem, Stureplansgruppen contacted Ozonotech. Our RENA Kitchen Solutions together with our newly developed catalytic mixed-bed filter Nodora was the perfect match for the mission.

First, the 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 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.

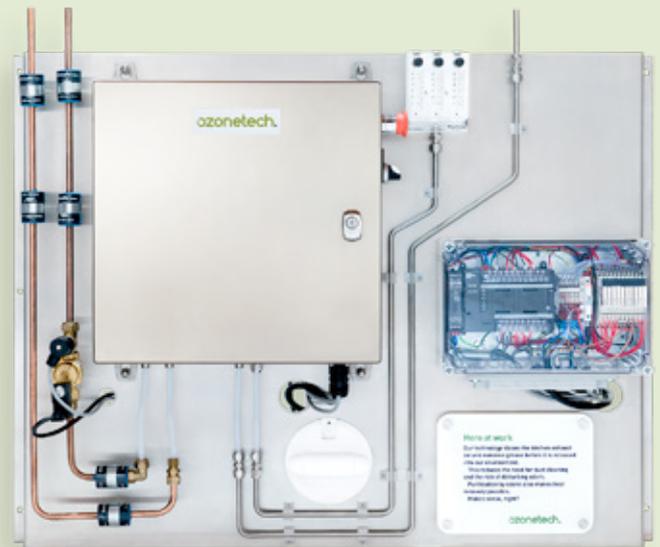
Nodora is a modular system with an extremely low pressure drop (i.e. low energy consumption) given its treatment capacity. Nodora also exhibits a high ratio between cleaning capacity and footprint – making it suitable when purification requirements are high, but the space is limited.

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.



Six Nodora modules were installed in a 3x2 pattern. Based on thorough calculations Nodora is designed to avoid inefficiency. All volumes of the active substances are used all the time.



RENA KITCHEN SOLUTIONS

The high-performance and remote monitored 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.

INSTALLATION FACTS

Name and location	Restaurant L'Aventura, 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
System solution	RENA Kitchen Solutions combined with Nodora air treatment system

RENA KITCHEN SOLUTIONS

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

NODORA (6 MODULES)

Dimensions (HxWxD)	2070 x 3480 x 1520 mm
Pressure drop	80 Pa

About Ozonotech

Ozonotech is an award-winning cleantech company that has offered premium products for air and water treatment since 1993.

Our unique technology and extensive expertise has made us a rapidly growing global company with installations on six continents. All development and manufacturing is located in Sweden. In addition, we have in-house specialists for consultation, planning, installation and service.

As a Center of Excellence within air and water treatment, we also collaborate in international efforts to develop global standards for purification solutions.

At Ozonotech, we have a strong incentive to reduce energy consumption, health risks and the impact on the environment. Our current solutions provide a multitude of benefits in the processing and food industry, real estate, commercial kitchens as well as in the retail market.

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

Elektravägen 53
SE-126 30 Hägersten, Sweden
+46 8 714 07 00
www.ozonotech.com

