

Implementing RENA Kitchen Solution in one of Sweden's Busiest Travel Hubs



Airport foodcoart, Stockholm Sweden

Our client in this project is a state-owned company in Sweden that owns and operates the major airports across the country. Among them, Arlanda Airport is one of the busiest and most significant. Terminal 5, the largest terminal at Arlanda, handles both international and domestic flights and is used by the majority of airlines.

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Location: Stockholm, Sweden

Application: Kitchen exhaust treatment

Industry Commercial kitchen

Solution:

Mellifiq delivery: Multiple centralized RENA Kitchen Solutions

Capacity: 16 m³/s

Brands: **SZONETECN.**

The problem

Recently, our client undertook a comprehensive renovation of Terminal 5, aiming to improve the overall passenger experience, enhance safety, and optimize energy efficiency.

Terminal 5 is home to a broad selection of restaurants and eateries that cater to a wide range of tastes, including high-end dining experiences like La Girafe by Pontus Frithiof, casual dining options such as Bun Meat Bun, and more global-inspired offerings like Hawaii Poké. The terminal also includes restaurants like Little Italy by Pontus Frithiof and La Neta. These dining areas contribute to the high foot traffic within the terminal and are critical for the airport's operation and customer satisfaction.

However, due to the high volume of kitchen operations in the terminal, our client has faced challenges in managing risks associated with kitchen exhaust systems—such as fire hazards, unpleasant odors, and inefficient energy use.

These challenges prompted our client to explore solutions that could not only improve safety but also contribute to energy savings and environmental sustainability, while ensuring compliance with the EU Standard EN 16282, which outlines requirements for the design, installation, and performance of commercial kitchen ventilation systems.



Effective exhaust air treatment is essential for safe, efficient food service operations in busy public spaces like airports.

The solution

The renovation of Terminal 5 presented an ideal opportunity to implement Mellifiq's RENA Kitchen Solution—an advanced system well known for delivering efficient and sustainable ventilation technology for commercial kitchens. These systems incorporate innovative ozone technology to address critical concerns such as fire safety, odor problems, and energy efficiency.

By continuously injecting ozone into the kitchen exhaust air whenever the ventilation system is in operation, the system effectively breaks down grease particles. This proactive approach significantly reduces grease buildup within the ducts, thereby minimizing the risk of duct fires—a common hazard in large-scale food service settings.

In addition to improving fire safety, the system plays a crucial role in mitigating odor issues. Controlling cooking odors in high-traffic areas like airport terminals is essential for maintaining a pleasant environment. RENA Kitchen Solutions neutralize odorous compounds in the exhaust air while also preventing grease accumulation, resulting in cleaner exhaust ducts and a fresher atmosphere for both passengers and staff.

Furthermore, the system contributes to greater energy efficiency by keeping the exhaust system clean. A grease-free air stream allows heat exchangers to function more effectively, enabling the recovery and reuse of heat from exhaust air. This not only reduces overall energy consumption but also supports the airport's sustainability goals and helps lower operational costs.



Mellifiq's RENA Kitchen Solution installed at Terminal 5, Arlanda Airport — utilizing advanced ozone technology to improve fire safety, odor control, and energy efficiency in highdemand commercial kitchen environments.

Evaluation

The renovation of Terminal 5 at Arlanda Airport provided an opportunity to integrate modern solutions that improve operational efficiency and environmental performance. The implementation of RENA Kitchen Solution has enhanced fire safety, improved indoor air quality, and contributed to our clients sustainability efforts.

With capacities of 3,000 L/s and up to 5,000 L/s respectively, the RENA Kitchen 40 and RENA Kitchen 60 systems provide adaptable, high-efficiency ventilation tailored to the diverse demands of commercial kitchens.

Both systems deliver optimal air treatment even in highvolume settings such as the busy terminals at Arlanda Airport. By using ozone to treat kitchen exhaust air, the system reduces grease buildup, significantly lowering the risk of duct fires. It also neutralizes odors, enhancing air quality and comfort throughout the terminal. Cleaner ducts improve heat recovery efficiency, leading to reduced energy consumption and operational costs.

Fully compliant with EU standard EN 16282, the solution supports our client's environmental goals and demonstrates how effective exhaust air treatment can play a crucial role in maintaining safe and efficient food service operations in high-traffic public spaces.





Mellifiq's RENA Kitchen Solutions have enhanced safety, air quality, and energy efficiency at Terminal 5, promoting a more sustainable and comfortable environment for all stakeholders.

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.mellifig.com

