CASE STUDY Kingsgate, Brentwood - DUOVENT

Custom Ventilation Solution for a Seamless Roof Installation

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Situation

The refurbishment of a shared office space required the installation of a new bi-directional mechanical ventilation system. The project aimed to ensure optimal air quality and comfort for the building's occupants, necessitating a system that could handle substantial air volumes while fitting within the constraints of the existing structure. The challenge was to deliver a solution that provided 14m³/s of supply and extract air, integrated seamlessly into the roof plant area, and offered both heating and cooling capabilities.

Solution

S&P UK provided the DUOVENT system, a highly efficient air handling unit designed for demanding environments. The DUOVENT was selected for its ability to meet the project's specific requirements and its adaptability to the site's constraints. The system featured a rotary thermal wheel exchanger, which ensured high efficiency in heat recovery, and was built on site to accommodate the roof plant area's layout. The unit assembly included water coils for both comfort heating and cooling, ensuring a stable and comfortable indoor environment regardless of external temperatures. Additionally, the system came with packaged controls, facilitating easy management and integration with the building's existing systems.

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Logistically this project had the potential to go very wrong! Crane lifting a modular unit once built, over 5m tall with a thermal wheel to match, supplied in sections for site assembly onto a roof 4 stories up... The team at S&P handled this task with ease.

Sam Norrington Contracts Manager, NCC Mechanical Services

Benefits

The rotary thermal wheel exchanger maximized energy recovery, reducing operational costs and enhancing the system's overall efficiency. The inclusion of water coils for heating and cooling provided precise temperature control, contributing to a comfortable indoor environment for all occupants. Moreover, the on-site assembly and installation process were streamlined, minimizing disruption and ensuring a smooth integration into the existing roof plant area. Overall, the DUOVENT system offered a reliable, efficient, and cost-effective solution tailored to the specific needs of the refurbishment project.







The SLIM is a specialised heat recovery unit designed for discreet indoor installation within false ceilings. It boasts an aluminium counter-flow heat exchanger that achieves an impressive 92% efficiency, ensuring effective heat recovery. With a capacity to handle airflows of up to 2,000 m³/h, it's versatile for a range of indoor ventilation needs.

Features:

- Air Handling Capacity: Capable of providing air volumes of up to 14 m³/s for both supply and extract air, ensuring efficient air circulation in large spaces.
- Rotary Thermal Wheel Exchanger: Incorporates a rotary thermal wheel exchanger for superior heat recovery, enhancing energy efficiency by transferring heat between the incoming and outgoing air streams.
- **Modular Design:** The unit's modular design facilitates site-specific assembly and installation, particularly useful for complex or constrained environments like roof plant areas.
- **Double Deck Configuration:** The double deck air handling unit allows for a compact footprint while delivering high performance.
- Heating and Cooling Coils: Equipped with water coils for both comfort heating and cooling, ensuring a comfortable indoor environment throughout the year.
- **Packaged Controls:** Comes with integrated control systems for easy management and operation, providing a seamless user experience.





Interested in discussing these projects further or exploring potential opportunities? Reach out to Becky Chaplin, Project Sales Manager - East Anglia

> Contact Becky here: rchaplin@solerpalau.com 07881 784631

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This project highlighted the flexibility and reliability of our DUOVENT units. Despite the challenges of site assembly and space constraints, we were able to deliver a high-performing ventilation solution tailored to the client's needs.

Becky Chaplin

Regional Sales Manager, S&P

