



world forum
parking A

Building & Industry



SCHAKO Group

Quiet and efficient underground car park ventilation retrofit

Beneath The Hague's renowned World Forum convention center, the car park ventilation system was due for an upgrade. The objective was to implement a modern, energy-efficient solution to improve performance, reduce noise and ensure long-term reliability.

The project

The World Forum's underground car park ventilation system had been in operation for over 30 years. Over time, spare parts became unavailable, maintenance costs increased and energy performance no longer aligned with current standards.

With NOVENCO Building & Industry selected as the supplier, a complete retrofit was carried out to enhance reliability, comfort and performance, while daily operations continued without disruption.

The challenge

From a technical perspective, the retrofit required careful planning. The technical room in the underground car park has a narrow entrance of just 75 cm, which required a tailored approach for installing four exhaust fans and a new control panel. At the same time, the upgraded system needed to be future-proof, more energy-efficient and quieter, while maintaining the required level of performance and reliability.

The solution

To meet the project's requirements, NOVENCO supplied a complete solution featuring a 1-to-1 replacement of the existing fans and control system, reusing most of the existing cabling to minimize waste and downtime.

The project included the delivery of four ZerAx® axial flow fans (AZN-1120) with IE5 motors and an indicative power consumption of 3.8 kW, along with one NOVENCO control panel.



Space- and energy-consuming fan from the outdated system



Pre-installation: Two worn-out fans reflecting years of heavy use

The ZerAx fans were assembled on site to overcome the tight access of the technical room, and mounted vertically to the ceiling for optimal airflow and minimal disruption to car park users. The control panel with frequency converters was installed, allowing precise speed control and future system upgrades.

All mechanical and electrical work, including new cable routes and commissioning, was carried out by NOVENCO's experienced service team, ensuring a seamless and efficient installation.

The results

The retrofit provided a reliable, energy-efficient, and quiet ventilation system that meets current operational and performance requirements.

Main advantages of the new system:

- Lower energy consumption
- Reduced noise levels
- Extended service intervals and reduced maintenance requirements.

The upgraded system now delivers consistent airflow, improved operational efficiency and easier maintenance, ensuring safe and effective ventilation for the car park.

"The new ventilation system has made a noticeable difference - quieter operation, lower energy use and complete peace of mind. It's great to know the installation is future-ready while preserving the comfort and safety of our visitors."

*Manon Jongejan, Technical Facility Manager
World Forum The Hague*



Post-installation: Compact, energy-efficient ZerAx fans