

UPGRADING CAR PARK VENTILATION FROM OUTDATED DUCTS TO EFFICIENT NOVENCO JET FANS



Located in The Hague, the Netherlands, Scheveningse Duyn is a modern residential complex with 48 apartments with private parking spaces in the underground car park. Recent upgrades to the building included a complete renovation of the underground parking facilities.

THE PROJECT

The underground car park of Scheveningse Duyn had been relying on the same ventilation system for over 30 years.

The old system consisted of two large roof fans connected to an outdated ductwork system for air distribution. Over time, parts became difficult or impossible to source, maintenance costs escalated and the system was no longer compliant with the latest health and safety requirements.

Additionally, limited accessibility for repairs on the roof created further challenges.

THE CHALLENGE

The client required a complete replacement of the ventilation system with a modern, future-proof solution.

Key objectives included:

- Up to date: improve air quality and compliance with latest building requirements.
- Reliability and performance: Ensure continuous, effective ventilation.
- Maintenance accessibility: Simplify routine servicing without disrupting car park use.

THE SOLUTION

After a careful assessment, the decision was made to replace the old ducted system with a jet fan ventilation solution, complemented by a modern CO/LPG detection system and new control infrastructure.

The upgrade included:

- 2 CGF-500 centrifugal car park jet fans for efficient air movement.
- 2 ZerAx® AZL-400 axial fans with IE5 motors (indicative 1.35 kW power consumption) for exhaust ventilation.
- CO/LPG detection system compliant with NEN 2443 standards.
- NOVENCO control panel for detection driven ventilation.

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FACTS

- REDUCED POWER CONSUMPTION
- IMPROVED AIR QUALITY
- MORE EFFICIENT MAINTENANCE

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The new jet fan ventilation system has significantly improved the underground parking facilities. We benefit from improved air quality, reliable air quality monitoring and easier maintenance access. This modern solution not only enhances comfort and safety for residents but also ensures long-term efficiency and reliability for the building.

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Board and Technical Committee
VvE Scheveningse Duyn

- Electrical cabling, surface-mounted hostalith conduit, roof cowls, silencers and minimal ductwork for optimal airflow and noise reduction.
- Installation and commissioning of the updated ventilation system.

THE RESULTS

The new jet fan system has completely transformed the car park ventilation at Scheveningse Duyn.

Efficient fans in combination with detection based controls have reduced power consumption, delivering energy savings.

At the same time, air quality has improved, with CO and LPG levels continuously monitored to ensure safety.

Maintenance has also become more efficient, as easy access and centralized control reduce service times and costs.

Replacing a 30-year-old, inefficient system, this future-proof solution is designed to last for decades, supported by available parts and service expertise.



Before: outdated duct system – costly and inefficient



After: modern jet fan solution – reliable and energy-efficient



NOVENCO jet fans installed directly on the ceiling for maximum efficiency and space savings



CO/LPG detection system ensures continuous monitoring and safety