

Building & Industry

**NOVENCO**

SCHAKO Group

# Project Meander II Amsterdam – improved reliability and efficiency for car park ventilation system

## The challenge

The existing garage ventilation system used single-phase, dual-speed transformer-controlled radial fans. This outdated setup was inefficient, partially malfunctioning, and consumed unnecessary energy. Reliability had also become an increasing concern.

## The solution

To upgrade the setup through replacement of the outdated and old units with two reliable and energy-efficient NOVENCO® ZerAx® axial fans. Each of the new fans have a 0.8 kW motor with a combined output of 1.6 kW. Compared to the previous 3.2 kW total load, the new solution cuts energy use by 50%.



Control cabinet with frequency converters and PLC control



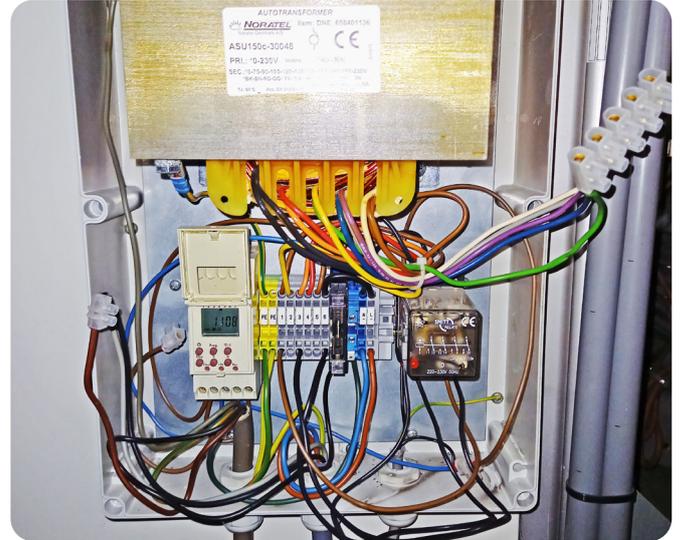
The new ventilation system with space-saving ZerAx fans

## On-demand ventilation

The new setup employs frequency drives to add major efficiency gains by enabling variable fan speed control. The system now adjusts airflow to match real-time demand.

During low-traffic hours, such as at night, fan speeds drop significantly — reducing energy use by up to 80% or more.

The frequency drives integrate seamlessly with the existing gas detection system. This smart interaction ensures ventilation, adapts automatically to actual air quality, and maintains optimum airflow and a healthier environment.



Transformer control old system

## Space saving

The new installation has a compact footprint, as shown on the right. The reduced size improves access to the nearby staircase door and enhances operational convenience.

## Enhanced overall performance

Beyond substantial energy savings, the upgrade improves system reliability, supports long-term sustainability, and delivers optimised airflow. Together, these benefits create a significantly stronger and more efficient car park ventilation solution.



The old ventilation system with centrifugal fans

### Facts:

- Optimal airflow and improved air quality
- Better overall performance
- Increased system reliability
- 50–80% energy savings
- Space-efficient design