

NIEUW HOOG CATHARIJNE

5 LEVELS OF FRESH AIR UNDER THE GROUND



ABOUT THE PROJECT

The renewed and expanded mall Nieuw Hoog Catharijne in Utrecht (The Netherlands), designed in close cooperation with very talented architects from Amsterdam and Los Angeles, comprises large, modern and transparent spaces. The new design aligns shopping centre and city centre, as two parallel boulevards run through the building from the Central Station to the city centre, creating one common space area. A quite attractive element of this construction - "Stadskamer", made of glass from the bottom to the top, allows visitors to experience the flowing canal Catharijnesingel just under their feet. The construction comprises 23,000 m² of retail space, 19,000 m² of shopping gallery, 9,000 m² of hotel space

and an underground car park with approximately 1,300 spaces. Moreover, the construction will also include 60 apartments just above the Nieuw Hoog Catharijne.

FIVE STOREY UNDERGROUND

Novenco Building & Industry (NBI) was awarded the contract for the re-design, component delivery, installation and assisted on the commissioning of the car park ventilation system for this unique 5 level underground car park. With an impressive 40,000 m² parking area, this is one of the largest underground car parks in The Netherlands. Furthermore, an unusual and very interesting building method was chosen for the car park. To advance and speed up the whole process, it was built in

upward and downward directions concomitantly starting from level -2. Although the car park ventilation system is mainly designed as a fresh air and CO/LPG ventilation solution, the system can also be used by the fire brigade as a smoke ventilation system in case of fires.



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FACTS:

- 23,000 M² OF RETAIL SPACE AND 19,000 M² OF SHOPPING GALLERY
- FIVE STOREY UNDERGROUND CAR PARK OF A TOTAL 40,000 M²

EQUIPMENT DELIVERY

To create an efficient ventilation system, NBI supplied two large NovAx ACP-1400 axial flow fans with a total fresh air capacity of approx. 200,000 m³/h. Further fresh air is supplied through the huge entrance tunnels, which are equipped with in total 6 pcs NovAx AUT-400 jet fans which induce further fresh air into the car park facility.

The fresh air is distributed throughout the parking levels by means of 42 pcs of CGF-500 centrifugal jet fans. The CGF-500 jet fans have an installation height of less than 27 cm, ensuring maximum available clearance height in the car park levels.

Three large NovAx ACN-1600 axial flow fans, with a total exhaust capacity of 460,000 m³/h, ensure that the polluted air mixture is safely extracted from the car park.

All jet fans were powder coated in the colour white. In combination with the white ceiling and walls, the car park looks and feels really clean and fresh. NBI also installed large roof cowls on top of the ventilation shafts and ventilation grills on all levels of the ventilation shafts. Through the parent company Schako, NBI also supplied and installed attenuator baffles, fan isolation dampers and large dampers for the ventilation shafts to balance the ventilation system throughout all parking levels.

