

KONING WILLEM-ALEXANDER TUNNEL

THE GREEN CARPET OVER MAASTRICHT



ABOUT THE PROJECT

The exceptional design of these 2.3 km long double-layer tunnels are a first of its kind in Europe, suitable for passenger cars, lorries and trucks. The tunnel separates local traffic from transit traffic and advances a green environment for the citizens, as part of an integrated and sustainable plan for the city and the motorway.

The plan entails multiple objectives for the improvement of the traffic flow on the A2 and the accessibility of Maastricht, as well as one that promotes the quality of life and road safety, resolving bottlenecks within the city, and creating opportunities for urban development. The integral area 'The Green Carpet' is designed on top of the new A2 motorway tunnel. A long, intimate tree-lined ave-

nue above the tunnel is the connecting element between the adjacent city-districts. Moreover, the project contains more than 1,000 dwellings and 30,000 square meters of commercial real estate, all filled with more than 1,000 trees winding through the city.

THE HIGHEST SAFETY

Novenco Building & Industry (NBI) was awarded the contract for both the tunnel ventilation system and the pressurization system of the escape routes, including system engineering, delivery, mounting, commissioning, factory acceptance tests (FAT), site acceptance tests (SAT) and handover.

For the four tunnel tubes, NBI delivered in total 66 fans for the ventilation, escape routes pressurization systems

and smoke control system in case of a fire in the tunnel. All axial flow fans and tunnel jet fans are executed in high-grade (AISI 3.16) stainless steel. All fans are certified as a smoke extract fan in the class F300 in accordance with the European Standard EN 12101 (tested 300°C for at least 2 hours).



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EQUIPMENT DELIVERY

A total of 23 tunnel jet fans type AUR-1120 are installed on the tunnel tube entrances.

A total of 39 fully reversible tunnel jet fans type ARR 800 are installed inside the tunnel.

NBI also supplied and installed the control panels in the service corridor to the two centre tunnel tubes for powering and controlling the tunnel jet fans, including the cabling between the control panels and the jet fans.

There are two escape tunnels inside the service tunnel, for which NBI delivered and installed a safety pressurization system. With a pressurization system, the escape routes are pressurized to prevent any smoke from entering the escape tunnel in case of a fire in one of the tunnel tubes. For this system 4 axial pressurization fans type ACN-1120 were installed, including all necessary accessories, such as attenuators, ductwork, dampers, outside air intake grilles, control panels, smoke detectors, pressure differential transmitters, temperature transmitters and all cabling between the control panels and the system components.

FACTS:

- 2.3 KM LONG GATEWAY FROM THE NETHERLANDS INTO THE REST OF EUROPE
- TWO DOUBLE-LAYER TUNNELS, FIRST IN THE EUROPE

