

HEINENOORD TUNNEL RENOVATION

NOVENCO FANS ENSURE SAFETY AND RELIABILITY



The Heinenoord Tunnel on the A29 highway, opened in 1969 and stretching 614 meters, has undergone a major renovation in 2023-2024. As part of the extensive modernization, the tunnel was equipped with new technical installations and a central escape passage to meet the latest safety requirements. With these upgrades, the Heinenoord Tunnel is now fully prepared to serve road users safely and reliably for decades to come.

THE PROJECT

The Heinenoord Tunnel, a critical connection between Rotterdam and the Zeeland and South Holland Islands, underwent a major renovation in 2023–2024 to enhance safety, reliability, and operational performance. Rijkswaterstaat, the Dutch Ministry

of Infrastructure, upgraded the tunnel's aging technical systems and implemented a secure escape route between the two tunnel tubes.

THE CHALLENGE

The tunnel required a comprehensive ventilation and pressurization system to ensure safe evacuation in emergencies, as well as effective smoke control for tunnel users. The existing infrastructure was outdated, and the project demanded reliable, high-performance fans capable of meeting strict safety standards while operating efficiently under challenging conditions.

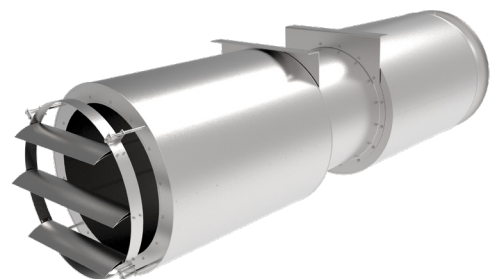
THE SOLUTION

NOVENCO® Building & Industry provided advanced tunnel ventilation solutions

tailored to the Heinenoord Tunnel's needs.

Tunnel Ventilation & Smoke Control:
19 × AUR-1250 jet fans with 55 kW motors,
installed throughout the tunnel.

Escape Tunnel Pressurization:
2 × AZN-1250 fans with 55 kW motors
2 × AZL-1000 fans with 30 kW motors.



NOVENCO® NovAx™ AUR tunnel jet fan

HEINENOORD TUNNEL RENOVATION NOVENCO FANS ENSURE SAFETY AND RELIABILITY

Both AZN and AZL are part of NOVENCO's ZerAx® range, highly efficient and reliable, ensuring a safe and effective pressurization system for emergency evacuation. The AUR fans are built on NOVENCO's NovAx™ range, providing outstanding efficiency and reliability compared to other fans on the market. NOVENCO designed, supplied and installed these systems, ensuring seamless integration with the renovated tunnel infrastructure while maximizing safety, performance, and energy efficiency.

THE RESULTS

With NOVENCO's solutions in place, the Heinenoord Tunnel now operates to the highest standards of safety and reliability. The new pressurization system ensures that the escape tunnel remains a safe evacuation route in case of an emergency, while the jet fans provide effective ventilation and smoke control throughout the tunnel. Together, these upgrades extend the tunnel's operational lifespan and reinforce its role as a critical road link in the region. The project highlights NOVENCO's ability to deliver advanced, energy-efficient, and dependable ventilation solutions for complex infrastructure projects.

FACTS

- EFFICIENT VENTILATION AND SMOKE CONTROL ACROSS THE ENTIRE TUNNEL
- FULLY PRESSURIZED ESCAPE TUNNEL
- EXTENDED OPERATIONAL LIFE OF THE TUNNEL



NOVENCO AUR tunnel jet fans in the Heinenoord Tunnel



Installation of NOVENCO fans along the tunnel ceiling for ventilation and smoke control



The renovation of the Heinenoord Tunnel was a complex project with strict safety and reliability requirements. NOVENCO's ventilation solutions have been essential in meeting these goals. The tunnel jet fans provide reliable ventilation and smoke control, and the pressurization system ensures a safe evacuation route. With NOVENCO's support, we can now operate the tunnel with confidence that it meets the highest safety standards and will serve road users reliably for many years to come.



Jurgen van den Bos
Operational Manager
SPIE Nederland B.V.

Rick Schreurs
Design Leader and
Technical Manager
SPIE Nederland B.V.