

EFFICIENT VENTILATION ZERAX® FANS ENSURE SAFETY AND HEALTH IN NEW MALL IN RIYADH, SAUDI ARABIA



ABOUT THE PROJECT

The new and prestigious Al Rashid Mall in Riyadh, Saudi Arabia has a total mall area of 89,000 m² and houses both shops and offices and an underground parking area.

With thousands of people visiting every day, it is imperative that noise levels are kept to a minimum and that contaminated air discharged from the cars will not affect the public and customers.

THE SOLUTION

The installation includes 69 ZerAx® AUZ-340 Jet Fans distributed within the car park to guide fresh air to all areas and to transport contaminated air/smoke to the extract points and 15 ACN1120/403-6 high temperature ex-

tract fans located in 5 fan rooms. Each fan room has the capacity to extract 78 m³/s of air. Prior to the installation Novenco has carefully analysed the air-flow by using CFD (Computational Fluid Dynamics) to optimize and show the effectiveness of the proposed solution.

The ventilation solution limits CO levels in the car park and provides smoke clearance in the event of a fire in the car park area. The analysis is used to verify escape routes and free passages for fire and rescue personnel in case of a fire emergency in the car park area.

The jet fan systems have many benefits over traditional ductwork ventilation systems. These include simplified and quicker installation, energy savings,

cleaner environment and more effective ventilation throughout the parking area.



Novenco Building & Industry delivers a complete, automated solution, including supervision and installation.

The automatic solution is based on the thoroughly tested Novenco Car Park System.

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The system has fully automatic stand-alone control for each ZerAx®, with network connection to all the other machines in the system, enabling general control and monitoring but also intelligent exchange of operational status so that other systems can take over in case of errors with an individual system.

The system is built with the latest PLC system with a colour touch screen, as well as a fully duplicated frequency transformer set-up as backup.

EQUIPMENT DELIVERY FOR

AIR INTAKE

Natural supplied air is distributed efficiently by 69 AUZ jet fans.

EXHAUST

NovAx ACN 1120 fans with mounting feet and acoustic diffuser, as well as a frequency transformer.

The total number of exhaust fans is 16. NovAx type ACN 1120 has an efficiency of 80% and is delivered with highly effective motors.

FACTS:

- TOTAL AREA OF 89,000 m²
- THOUSANDS OF PEOPLE VISITING EVERY DAY
- SAFE UNDERGROUND CAR PARK



Al Rashid Mall in Riyadh has a total mall area of 89,000 m²



ZerAx® Jet fans ensure clean environment and smoke clearance in car park area