

CAR PARK VENTILATION SAFETY IN BURJ KHALIFA'S CAR PARKS



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VISION

World's tallest building, incomparable achievement of engineers, unique work of art - Burj Khalifa is all the above, literally and figuratively. More than just the world's tallest building, Burj Khalifa is a splendid symbol of development of the dynamic and successful Middle East.

Finally, Burj Khalifa is an impressive example of Dubai's growing role in a changing world. In less than 30 years Dubai has developed from a regional centre to a global one. Dubai does not owe its success to oil reserves, but to resources of human talent, their ingenuity and creativity.

ONE TOWER

555 metres above ground, the highest outdoor observatory in the world is lo-

cated, which is undeniably Dubai's most iconic destination.

The Corporate Suites located on the top levels of the tower with 37 floors are offices with the most inspiring view.



Armani Hotel Dubai, occupied by many of the tower floors, is the world's first hotel designed by Giorgio Armani. Reflecting the pure elegance, simplicity and sophisticated comfort that define Armani's signature style. In addition, on floors 9 to 16, Luxury Residential Suites designed also by Giorgio Armani

are located. Moreover, with 900 private apartments, luxurious pools, restaurants and fitness facilities Burj Khalifa is the world's most-prestigious address and home to a select few.

WORLD RECORDS

With almost 830 metres and more than 160 stories, Burj Khalifa holds the following world records:

- Tallest building
- Tallest free-standing structure
- Highest number of storeys
- Highest occupied floor
- Highest outdoor observation deck
- Elevator with the longest distance
- Tallest service elevator

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RELIABLE CAR PARK VENTILATION

The car park in Burj Khalifa has approx. 3,000 parking spaces in four levels and a total area of just below 89,000 m².

The car park ventilation system delivered by Novenco Building & Industry complies with the US standards Ashrae and AMCA for air quality and fan requirements. What is important to underline, in case of fire the system is capable of operating at 300°C for min. 60 minutes.

A CFD-simulation was carried out for the project in order to show that the ventilation system is capable of limiting the concentration of carbon monoxide to a level below the specified 35 parts

per million. The CFD simulation did also show air velocities and the smoke density and smoke temperature in case of a fire in the car park.

All in all 50 Novax™ axial flow fans and 196 jet fans have been delivered for this spectacular project.



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