

## Rose Rotana Rayhaan

Dubai

### Case Study



#### **A climbing facade access system for maintenance of The Rose Rayhaan by Rotana, Dubai**

Manntech is recognised globally for advanced German high quality engineered building maintenance units pioneering many of the facade access systems seen in the industry today.

The Rose Rayhaan by Rotana, or Rose Tower, located in the futuristic city of Dubai in the United Arab Emirates, called on the expertise of Manntech to deliver full coverage facade access. The 333m tower is the world's fifth tallest hotel, offering 462 hotel suites alongside amenities, including two restaurants and a café.

The facade of the Rose Tower stands out in the Dubai skyline, composed of blue and silver mirror glass alongside gold features, including rings and petals which resemble a flower. As such, preserving the aesthetic integrity of the building was a crucial consideration in the delivery of a facade access system, resulting in the provision of a building maintenance unit that can be stored away from view when not in use.

The installed Type 6 BMU is a unique design due to the building's complex structure, consisting of a climbing trolley with an access platform that carries all drive and driving mechanics components, the suspended platforms, and the vertical track system. Together, this achieves a 21-metre outreach to create the most efficient cleaning cycle for the entire building.

Specifically, the system's climbing trolley is lifted hydraulically, step by step to the desired working position through the 4 metre opening. By luffing the jib arms and lifting and lowering the suspended platforms, the vertical working positions can be reached for each platform individually. As both jib arms are mounted on the same slewing frame, the positions of the suspended platforms will always be exactly opposite each other. The jib arms are independent from each other and can turn  $\pm 180$  degrees. An exact part of the platform towards the facade can be reached by the luffing and slewing of jibs and the platforms.

The benefits of employing the Type 6 BMU include total peace of mind regarding quality and safety. Constructed from galvanised steel for maximum corrosion resistance and primed and painted in RAL colours for optimal protection, the tried and tested system features mechanical devices and hoist mechanisms that safeguard operations in an emergency.

### Facts and Figures

**Completion:**  
2009

**Commencement:**  
2004

**Building Height:**  
333 metres

**Floor Count:**  
71

**Number of BMUs:**  
1

**BMU Type:**  
6.4

**Outreach:**  
21 metres

**Building Type:**  
Hotel

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