

The Henderson

Hong Kong

Case Study



Navigating Curves: A custom BMU Solution for The Henderson by Zaha Hadid Architects

An Architectural Masterpiece with Unique Maintenance Challenges

The Henderson, designed by the renowned Zaha Hadid Architects, is an architectural masterpiece redefining Hong Kong's skyline. Located in the heart of the city, this high-rise commercial tower features an organically flowing form inspired by the city's natural landscapes. With its striking curved glass facade and cutting-edge structural design, The Henderson stands as a testament to modern engineering and sustainable innovation.

Our client required a BMU system for a high-rise structure featuring a complex facade, ensuring seamless maintenance and cleaning operations. A key requirement was a lifting capacity of approximately four tons in crane mode to accommodate specialized facade maintenance needs. The building stands out due to its curved glass panels, which elegantly reflect light and the surrounding environment. This design choice not only enhances its contemporary appearance but also necessitated a carefully engineered BMU solution that could adapt to its unique structure without compromising efficiency.

Innovative Engineering to Overcome Complex Constraints

One of the primary challenges was the building's curved facade, which required meticulous engineering to ensure smooth BMU operation during haul-in procedures. To overcome this, we collaborated closely with Access Advisors Ltd., the facade consultant, to develop a system that seamlessly integrates with the building's distinctive architecture. Additionally, restricted access to the building required the use of innovative rigging techniques and precise planning to guarantee safety and operational efficiency throughout the installation process.

Traditional solutions were insufficient due to the architectural complexity and the need for heavy lifting capabilities. Our approach involved designing a custom system featuring two identical Manntech BMUs equipped with cutting-edge safety features and monitoring capabilities. The BMUs offer an outreach of 26.5 meters, a telescopic mast, and a facade monitoring system that enables real-time diagnostics, ensuring optimal functionality and maintenance efficiency.

Efficiency, Cost Savings, and a Competitive Edge

Our solution significantly reduced operational downtime and enabled long-term cost savings through the integration of energy-efficient components. The advanced design of the BMUs enhanced reliability, providing a seamless facade maintenance system that minimizes the need for extensive manual intervention. By incorporating facade monitoring, the system allows for predictive maintenance, reducing unexpected repair costs and extending the lifespan of the equipment.

Our extensive track record in handling complex facades and executing iconic projects played a crucial role in being selected over competitors. The project was completed ahead of schedule, exceeding client expectations and setting a new benchmark for similar high-rise developments. Furthermore, our commitment to exceptional after-sales support reinforced our reputation as a trusted provider of facade access solutions.

Through strategic collaboration and innovative engineering, we delivered a high-performance BMU system that aligns with the building's aesthetic and functional requirements. The success of this project underscores our ability to navigate architectural complexities while maintaining efficiency, safety, and cost-effectiveness in facade maintenance solutions.

For more information, contact us

<https://www.manntech.com/contact/enquire-now/>

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Facts and Figures

Completion:
June 2024

Commencement:
February 2020

Building height:
190 m

Number of BMUs:
2

BMU Type:
Type 6.1

Outreach:
26.5 m

Building Type:
Commercial