

Jin Mao Tower

Shanghai

Case Study



Manntech deliver compact building maintenance units for landmark construction in Shanghai

This landmark construction was the first supertall skyscraper in the bustling Pudong area of Shanghai and, at 420.5m, was the tallest building in China from its completion in 1999 up until to 2007. It is home to retail space, offices and the anchor tenant Grand Hyatt Shanghai hotel. Beyond its height, the Jin Mao Tower is also among the most imaginative and architecturally complex buildings in the area. Inspired by traditional Chinese architecture such as the tiered pagoda, the building facade incorporates a gentle, gradual step design which tapers in towards the summit

After construction was completed, the owners requested help from **Manntech** with additional facade access equipment. The additional Building Maintenance Units (BMUs) required had to be tailored to the finished building and accommodated within very limited roof space whilst retaining the existing track layout. There was also an added complication of working on a completed building in that the tower cranes used during construction were no longer an option for lifting the BMUs into place.

Manntech delivered two compact crane type BMUs which were able to operate within the confined space available and without adjustments or reworking of the existing track layout. While compact in design, the BMUs provide a practical building access system with an outreach of 5.67m and coverage of the entire facade down to the ground floor. The challenge of lifting the BMUs up to roof level was solved by designing the machines in such a way that all the individual components could be hoisted in a material lift and assembled in situ on the roof. All this work took place at night in order to avoid disturbing the building's office tenants.

Facts and Figures

Commencement:
March 2000

Completion:
October 2000

Building Height:
420.5 meters

Floor count:
88

Access solution:
▶ Type 4.2/1500

Outreach:
5.67 meters

Building Type:
Hotel and office

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