

Reliable BMU systems to serve the flowing form of Tianjin Chow Tai Fook Financial Centre

Tianjin Chow Tai Fook Finance Centre rises elegantly 530 metres over the Tianjin Economic-Technological Development Area.

This supertall skyscraper will serve as a focal point and an anchor for regeneration and development in the wider locality. Comprising of the imposing main tower itself, a five-storey podium and four-storey basement, Tianjin CTF is a mixed-used development providing office space, luxury serviced apartments and a hotel.

The curving yet dramatic tapering lines of the building were conceived with a number of practical and conceptual considerations in mind. The flowing curves of the tower help to express the three distinct areas of the building, with their individual uses and characteristics, whilst also linking and uniting them in one continuous form. The tapered shape is achieved with eight sloping mega columns and by stacking floor plates of progressively smaller sizes as the tower rises towards roof level. This shape is designed to respond better to the seismic activity the region experiences and also minimises the surface area of the facade exposed to the elements including sunlight, rain and winds. In addition, the smooth curving lines extend to the rounded corners of the building, which also serve to improve aerodynamics and further reduce the impact of wind on the building. The facade is designed to echo and accentuate the curvature of the tower and to bring together the varied areas under its shimmering, graceful surfaces.

Bearing in mind the importance of the tower's tapering, curved profile, CoxGomyl were called upon to deliver BMU systems capable of overcoming the technical challenges this presented while also providing reliable and comprehensive access coverage. Achieving an acceptable rate of cleaning cycles is often an issue with supertall skyscrapers, and the project therefore called for a BMU system comprising multiple machines. One BMU with a five-stage telescopic jib is located at roof level. A further four BMUs, all with four-stage telescopic jibs, are located at level 71 and are also capable of retracting inside the building in their parked position so that they are hidden from view when not in use. The telescoping jibs are necessary to navigate the tapering form of the tower and, when retracted, also serve to give the BMUs a much more compact form in their parked position and reduce their visual impact on the design.

The breathtaking scale and distinctive form of Tianjin Chow Tai Fook Finance Centre seems set to make it a landmark development and, with practical, reliable BMU systems in place to provide maintenance access, is sure to stand as an iconic centrepiece of the region for many years to come.

FACTS & FIGURES

Commencement	2015
Completion	2020
Building Height	530m
Floor Count	99
No. of BMUs	5
Building Type	Mixed

