COX GOMYL
PART OF ALIMAK GROUP

Case Study
The Hanking Center, China



A flexible building access solution for the world's tallest detached core structure

Facts & Figures

Commencement	2016
Completion	2020
Building Height	350m
Floor Count	67
No. of BMUs	4



The Hanking Centre represents a remarkable achievement in a number of categories, including its architectural design and structural engineering. The ground-breaking nature of this construction project presented a number of building access challenges which CoxGomyl were tasked with addressing to deliver practical, cost-effective access solutions which would provide for cleaning of the entire facade surface as well as maintenance access for lighting and replacement of facade panels, including those located in irregular concave and convex areas of the facade.

The building is made up of two distinct tower structures which individually would be too tall and slender to be viable. They are interconnected to form a stable unified whole with a unique structural system which utilises an external core. The two towers are linked by sky bridges and diagonal mega-braces. Soaring to 350 metres in height, Hanking Centre is the tallest detached core structure in the world. The office space in the towers is artfully linked to a podium via folding angled surfaces, merging the public shopping and dining areas with the private business functions above.

In order to meet all of the access needs and overcome the technical challenges presented by the unique structural form, CoxGomyl developed a comprehensive building access system made up of four Building Maintenance Units. Two BMUs are located on the roof of the slightly taller south tower. Both of these units feature a two-stage jib and travel on a curved track with the addition of a branched offshoot for convenient and unobtrusive parking. The cradles in this location offer additional functionality to safely and effectively access the uniquely irregular concave and convex forms of the south elevation, with a pod attachment and a self-approaching mechanism to ensure the cradle can be securely pulled in towards the facade surface. The smaller north tower is serviced by a single BMU, which also offers a two-stage jib. This achieves complete coverage of its dedicated zone with a straight track design and the additional flexibility of a 2.5 metre telescopic cradle. The fourth and final BMU is located between the towers among the highly intricate system of linking bridges which connect them. Once again, this required a BMU with a special self-approaching mechanism to allow for navigation of the complex geography. All four BMUs also feature softrope restraint systems to allow operators to safely and securely move the cradle horizontally.

The finished access system represents another entry into CoxGomyl's extensive portfolio, further demonstrating their ability to deliver reliable, high-quality access solutions by leveraging an extensive product range and the expertise of our experienced team.

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