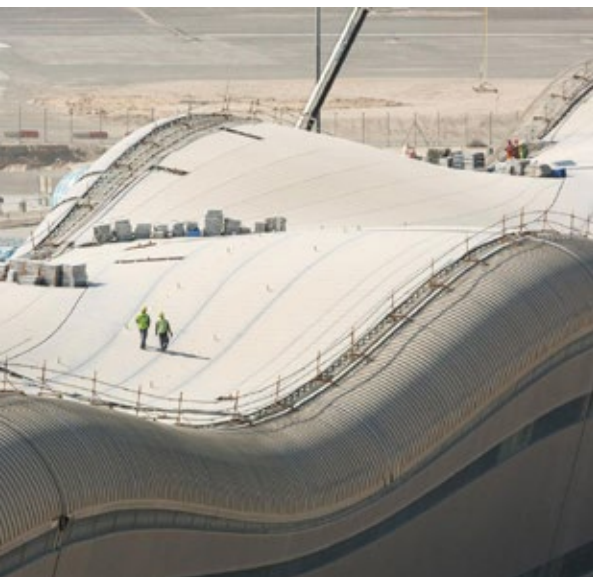




Facade Access Solution for the unique requirements of Abu Dhabi's new airport

Facts & Figures

Commencement	2013
Completion	2020
Building Height	52m
No. of BMUs	18 systems
Building Type	Commercial



The development and expansion of the Abu Dhabi airport has been a huge undertaking, not least in terms of the many and varied products and approaches that make up the specially tailored building maintenance system designed by CoxGomyL.

This sprawling aviation hub features a new passenger terminal as the centrepiece of the airport. The unique structure is raised from the ground and with 700,000 m² of internal space is visible from 1.5km away. The airport further dominates and defines the skyline with the transparent structure being illuminated at night to create an arresting image against the dark sky. In terms of height, the main departure hall reaches around 50 metres, but the complex as a whole is on a staggering scale designed to process 30 million passengers each year or 8,500 passengers every hour. The development boasts supporting arches spanning up to 180 metres, among the world's largest, which are also designed to appear visually separate from the roof to create an impression of space and weightlessness. The roof itself spans 319 metres at its widest point, with the facade surfaces encompassing 115,000 m² of glazing and 275,000 m² of aluminium cladding.

CoxGomyL's reputation as a leading provider of premium facade access solutions and our extensive portfolio of state of the art building maintenance systems for unique structures saw us chosen for this challenging access project. Our engineering and planning expertise made us capable of meeting the demands of such a huge undertaking. The planning stage alone involved immense challenges in successfully assessing on an enormous scope to ensure complete coverage of all surfaces. Approximately 20km of track was required to effectively access such a large structure stretching chiefly across a horizontal plane with numerous slopes and inclines which required special attention to fixing points and tolerances. This also involved close coordination with other contractors to ensure the feasibility of every part of the system.

The project called on CoxGomyL's experience and tried and tested technologies to meet the considerable access challenges involved. Multiple systems were deployed to deliver the most efficient, practical and safe means of access for every part of the building for both cleaning and panel replacement tasks. The facade access solution includes an under hanging, climbing BMU with a telescopic arm, both vertical and horizontal monorail systems with curving tracks to follow the complex geography of the roof. Along with gantries, aerial work platforms and abseil rails the entire building maintenance system works together in harmony to provide comprehensive cover of all exterior and exterior surfaces.