

Case Study:

Six Alimak construction hoists at work on South Quay Plaza redevelopment



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Six Alimak construction hoists at work on the prestigious South Quay Plaza project

Work has begun on the prestigious South Quay Plaza development in Canary Wharf on the Isle of Dogs, London. The project is being developed by The Berkeley Group and in total, there are six Alimak construction hoists being used on the project.

Six Alimak construction hoists are being used at the South Quay Plaza development project including a high speed 2m wide x 5m long 100m/min Alimak Scando 650 XL FC-S, with a capacity of 2,500kg, twinned with two 'TM Mammoth' hoists, each with a capacity of 5500kg and volume of 45m³.

Within the building's core, there is a 66m/min dual Alimak Scando 450 hoist, serving every floor and a single Alimak Scando 650 FC serving the basement. Alimak Hek's involvement covers design, installation, service and maintenance of the construction hoists and will run until 2020.

South Quay Plaza is a 220-metre-tall residential-led development under construction in the Isle of Dogs, London, to the immediate south of the financial district Canary Wharf. Developed by The Berkeley Group and designed by architect firm Foster + Partners, South Quay Plaza is set to be one of the tallest residential buildings in Europe, comprising three high rise, glass and steel towers,

of which the initial construction phase sees two towers being constructed using vertical access solutions supplied by Alimak Hek.

"This is one of the many projects Alimak Hek has secured recently in London, further showcasing the strength of our vertical access solutions offering. We are proud to be involved in South Quay Plaza, which will be one of the tallest residential buildings in Europe and please to see the continued demand for our solutions that are built to support safe and reliable vertical access during the construction period", says Cameron Reid, Project Director, Alimak Hek Ltd.

One of the design challenges faced were with the internal hoist (Alimak Scando 450) gates due to the available space within the lift lobby. The solution was a sliding electro mechanical door mounted from within the hoist and lift shaft. The gates are supported on the slab and fixed to the inside of the shaft. This makes for a more straightforward and self-contained installation.



One of the dual car Alimaks in use as an internal hoist, enabling quick and reliable access to each floor.

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Another key challenge when designing the vertical access solution was the requirement to work at extreme height on a very small building footprint and coordinate the logistics of working at height whilst other trades were active on the ground below. Part of the solution has been to develop a system of work that tethers every loose tool, component and material (no matter how large or small) that is being worked with by the Alimak engineers during installation.

There was also a need to provide a logistical solution for moving large prefabricated bathroom pods and external cladding panels onto each floor. The huge 45m³ Alimak TM Mammoth hoist car was perfect for this, however, the floor to floor height was smaller than the hoist opening and in order to accommodate the height of the material that was required to move from the hoist into the building, Alimak Hek designed a solution to mount the 3m wide hoist landing gates onto the face of the floor slab to allow the gate header to cover the floor slab thickness and thus maximise the gate leaf height.

HOIST DETAILS

Location: South Quay Plaza, Isle of Dogs, London, UK

Application: High-rise residential buildings

Hoist types: 1x ALIMAK SCANDO 450 FC II
1x ALIMAK SCANDO 650 FC
1x ALIMAK SCANDO 650 XL FC-S
2x ALIMAK MAMMOTH

No. of hoist cars: 6

Capacity/hoist car: 1,700kg - 5,500kg

Hoist car sizes (W x L x H): 1.4m x 2.4m x 2.0m
1.5m x 3.9m x 2.3m
2.0m x 5.0m x 2.8m
3.0m x 5.0m x 3.0m

Speed: 34m/min - 100m/min

Lifting height: Varies between 20m and 220m



An example of the prefabricated bathroom pods moved to each floor by the Alimak TM Mammoth.



An example of the solution designed by Alimak Hek to maximise the gate leaf height.

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