



SOUTH QUAY PLAZA 4, CANARY WHARF, LONDON, UK

CASE STUDY

Alimak BIM Gallery used on South Quay Plaza 4 construction project

Access anytime, anywhere

ALIMAK

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A second prestigious development at South Quay Plaza in Canary Wharf has chosen Alimak products to assist with the build. This is one of the first projects in which Alimak utilised its Building Information Modelling (BIM) gallery to assist with the planning.

CONSTRUCTION HOISTS & TRANSPORT PLATFORMS

There are five Alimak construction hoists at work on the South Quay Plaza 4 development project. A twin masted Mammoth, a Scando 650 XL FC-S and a Scando 650 FC are installed in a Triplex configuration, serving 55 landings up to 190m.

Two Alimak Scando 450 FC construction hoists serve 53 floors, including two basement floors, within the core of the building.

Finally, an Alimak TPL 1000 transport platform will provide access to the top two floors of the building.

Alimak's experience on similar projects, including the first phases on SQP allowed us to digitally enhance the

product BIM to ensure that design enhancements were validated prior to installation.

PROJECT

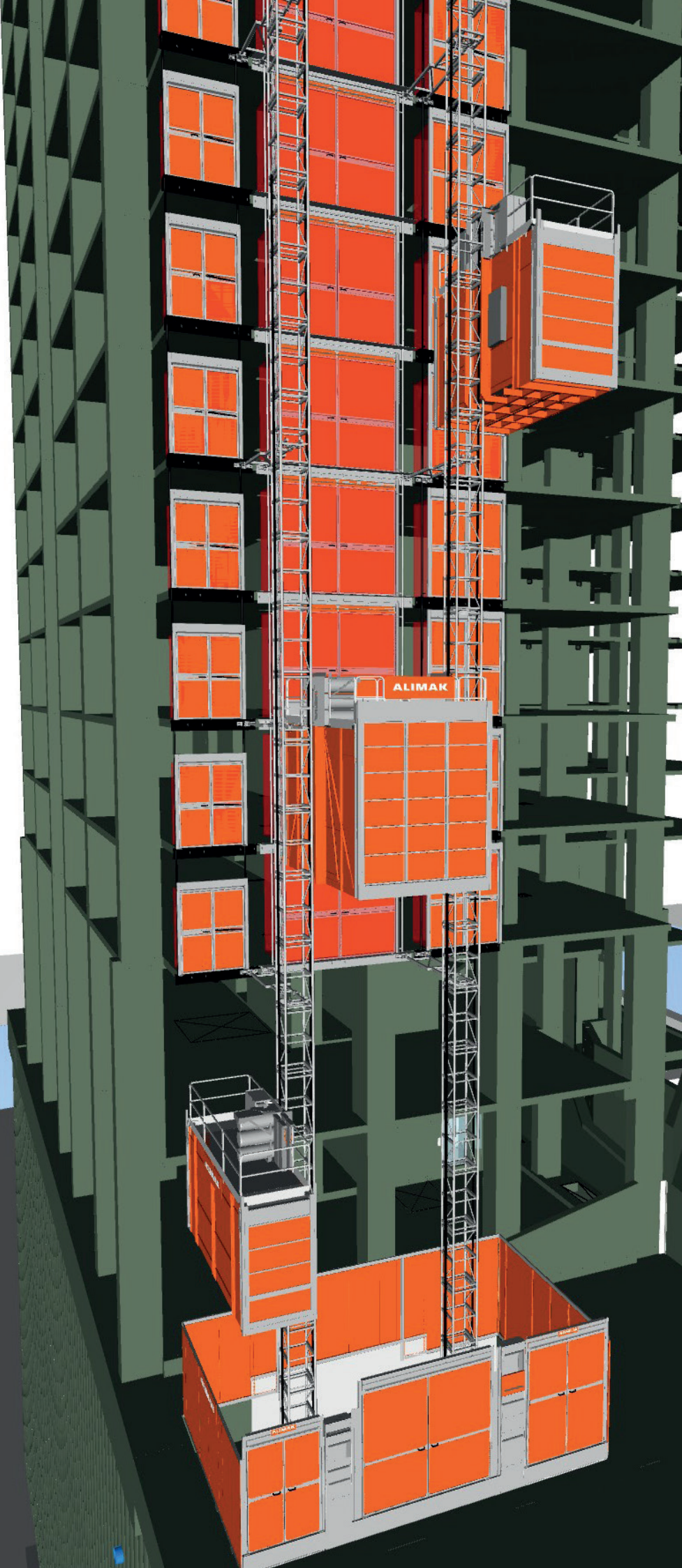
South Quay Plaza 4 is a Berkeley Group development and has been designed by Foster+Partners. When complete it will be 58 storeys high, incorporating both residential and retail units, as well as a communal terrace and sky garden.



One of the Scando 450 FC hoists, installed in a lift shaft.



Unloading straight into the Alimak Mammoth hoist made easy by the hoist floor being level with the site floor.



ALIMAK BIM GALLERY

Alimak's BIM gallery contains 3D models with key embedded information of our construction hoists. The BIM models can be configured to the customer's needs allowing them to simulate the use of our products at the planning phase of a project.

The South Quay Plaza 4 project used the NAVIS model with Alimak BIM integrated. This meant they were able to configure the BIM models to their exact required configuration and simulate them within the specific project environment, all of which helped to achieve a 'right first time' solution.

The BIM gallery has been developed by Alimak's team in Borås, Sweden and is available on our website.

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PROJECT CHALLENGES

The building is in very close proximity to London's DLR train line so there was very limited space to install the hoist. Alimak's engineers had to stay 5m away from the DLR and the hoist was not allowed to be lifted higher than the DLR bridge. During installation an exclusion zone was created by closing the site entrance and exit gates. The hoists were then carefully lifted into place.

To help ensure that Alimak's products serve the build in the most efficient way, the hoists installed externally in the Triplex configuration have been sunk into the pit by 1.5m. The result of this is that the hoist floor is level with the ground providing quicker loading and unloading times.

Part of the build requires façade panels to be unloaded from a lorry onto a platform on wheels. To assist with this, Alimak's engineers designed a bespoke 4.2m high gate for the Mammoth hoist (standard height is 2.8m.) These bespoke gates mean that the platform carrying the façade panels can be pushed straight onto the hoist ready to be transported to the relevant floor. The bespoke gates have a gate leaf steel extension which provides the extra height. When this is not required, the extension can be locked allowing for only the standard sized part of the gate to be opened.

HOIST DETAILS

Location:	South Quay Plaza 4, London, UK
Application:	High-rise building
Hoist models:	1 x Alimak TM Mammoth 55/50 1 x Alimak Scando 650 FC-S XL 25/50 1 x Alimak Scando 650 FC 32/39 2 x Alimak Scando 450 FC 17/22
Transport Platform model:	1 x Alimak TPL 1000
Capacity:	1,000 – 5,500 kg
Hoist car sizes (W x L x H):	3.0m x 5.0m x 3.0m 2.0m x 5.0m x 2.8m 1.5m x 3.9m x 2.3m 1.4m x 2.2m x 2.0m
Transport Platform size:	2.4m x 1.9m x 2.4m
Speed:	24m/min – 100m/min
Lifting height:	Varies between 99m – 190m



The bespoke Mammoth gate. Picture shows the gate leaf steel extension which increases gate from 2.8m to 4.2m.