

CASE STUDY

A comprehensive vertical access solution for the construction of Crown Casino, Sydney

The recently opened Crown Casino in Sydney has become the tallest building in the city at 271 metres and 75 floors in height. A construction project of this scale and complexity presented a number of vertical access challenges which could not be solved with standard hoists and components.

Alimak was able to draw on the strength and depth of an extensive product range, in addition to several project specific customisations, to successfully address a range of competing vertical access challenges.

The curving form of the tower structure itself made standard vertical access systems unworkable. Alimak's experienced engineering team was able to develop bespoke hoist cars and ties and ensured they were designed, fabricated and installed to provide for safe and reliable transport of personnel and materials up to 270 metres in height. The large footprint of the construction site and the scale of the building meant that the efficient transport of key people, materials, tools and vehicles was paramount in keeping the project running to schedule. A total of seven Alimak construction hoists were provided to fulfil the varied needs of the project, with the flexibility of a hire agreement meaning superior functionality was achieved in an economical package.

Among the construction hoists deployed was an Alimak Mammoth 55/50, designed to carry up to 5,500 kg. With increased car dimensions, this was ideal for transporting vital heavy equipment such as forklifts and electric pallet jacks to the higher levels, even being able to transport multiple forklifts at once.

Speed and maximising productivity were also key considerations. A combination of hoists with large cars and speeds of up to 80 metres per minute and convenient access points were intelligently deployed to provide for the most efficient deployment of people and materials across the site and to the top levels of the tower. A central core hoist was installed to provide access to the jump form while the building was being topped up.

Alimak has earned a strong reputation within the construction industry as a leading provider of vertical access solutions with a proven track record of supplying significant high-rise construction projects.

The complexity of the Crown Casino project required proven capability, engineering detail and quality machinery which Alimak are famous for.



Crown Casino, Sydney, Australia

HOIST DETAILS

Location:	Crown Casino, Sydney, Australia
Application:	High-rise construction
No. of hoist cars:	7
Hoist types:	Alimak Scando 650 31/39 Alimak Scando 450 14/24 dual Alimak Scando 650 32/39 Alimak Scando 650 XL 26/50 Alimak Mammoth 55/50
Capacity/hoist car:	Varies between 1,400 kg – 5,500 kg
Speed:	Varies between 32 – 80 m/min.
Lifting height:	31m, 72m, 262m

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