

Case study:

30 Alimak construction hoists at work in front of the holy mosque



Abraj Al-Bait Towers, Makkah, Saudi Arabia, 595 m

ALIMAK



Examples of tall buildings and structures where Alimak construction hoists or permanent elevators have been installed:

- Konstantynow Radio Mast, Poland (destroyed), 646 m
- Abraj Al-Bait Towers, Mecca, Saudi Arabia, 595 m
- CN Tower, Toronto, Canada, 550 m
- Taipei 101, Taipei, Taiwan, 508 m
- International Commerce Centre, Hong Kong, China, 484 m
- Troll A oil production platform, North Sea, 472 m
- Petronas Towers, Kuala Lumpur, Malaysia, 452 m
- Jin Mao Tower, Shanghai, China, 421 m
- Two International Finance Centre, Hong Kong, China, 415 m
- CITIC Plaza, Guangzhou, China 391 m
- Shun Hing Square, Shenzhen, China, 384 m
- Gullfaks C, North Sea, 380 m
- Central Plaza, Hong Kong, China, 374 m
- Bank of China Tower, Hong Kong, China, 367 m
- Emirates Tower I, Dubai, UAE, 355 m
- Tuntex Sky Tower, Kaohsiung, Taiwan, 348 m
- Electricity transmission towers, China, 346.5 m
- Viaduc de Millau, France, 343 m
- Burj Al Arab, Dubai, UAE, 321 m

Abraj Al-Bait Towers, Makkah, Saudi Arabia, 595 m

30 Alimak construction hoists at work in front of the holy mosque

30 high-speed Alimak construction hoists have been hard at work on the world's largest building project: the huge towers of Abraj Al-Bait. With heights reaching 595 meters, the towers are located just in front of the holy mosque in Mecca, Kingdom of Saudi Arabia.

In 2004 Alimak supplied 28 construction hoists for use on the huge towers of Abraj Al-Bait, with height of 595 m (1,950 ft), just in front of the holy mosque in Mecca, Saudi Arabia. Five years later, two additional high-speed Alimak hoists were installed in a shaft inside the tallest tower.

With one of the tallest buildings in the world in it's complex, contractor Saudi Binladin Group was faced with a massive logistics challenge to transport its workers. Upon completion, the tower within the complex will be the second tallest building in the world in addition to being the tallest and largest hotel in the world. It will also be the largest building in the world with a planned area of 1,500,000 square metres (16,137,600 sq ft).

The contractor's need was to bring 10 000 workers up

and down the buildings in 30 minutes (each way). 5 times a day for the praying times.

The chosen solution at Mecca is to use 14 dual car Alimak construction hoists. This includes six Alimak Scando 20/32 duals and eight Alimak Scando Super FC 28/37 duals. All of these hoists have been hard at work since 2004.

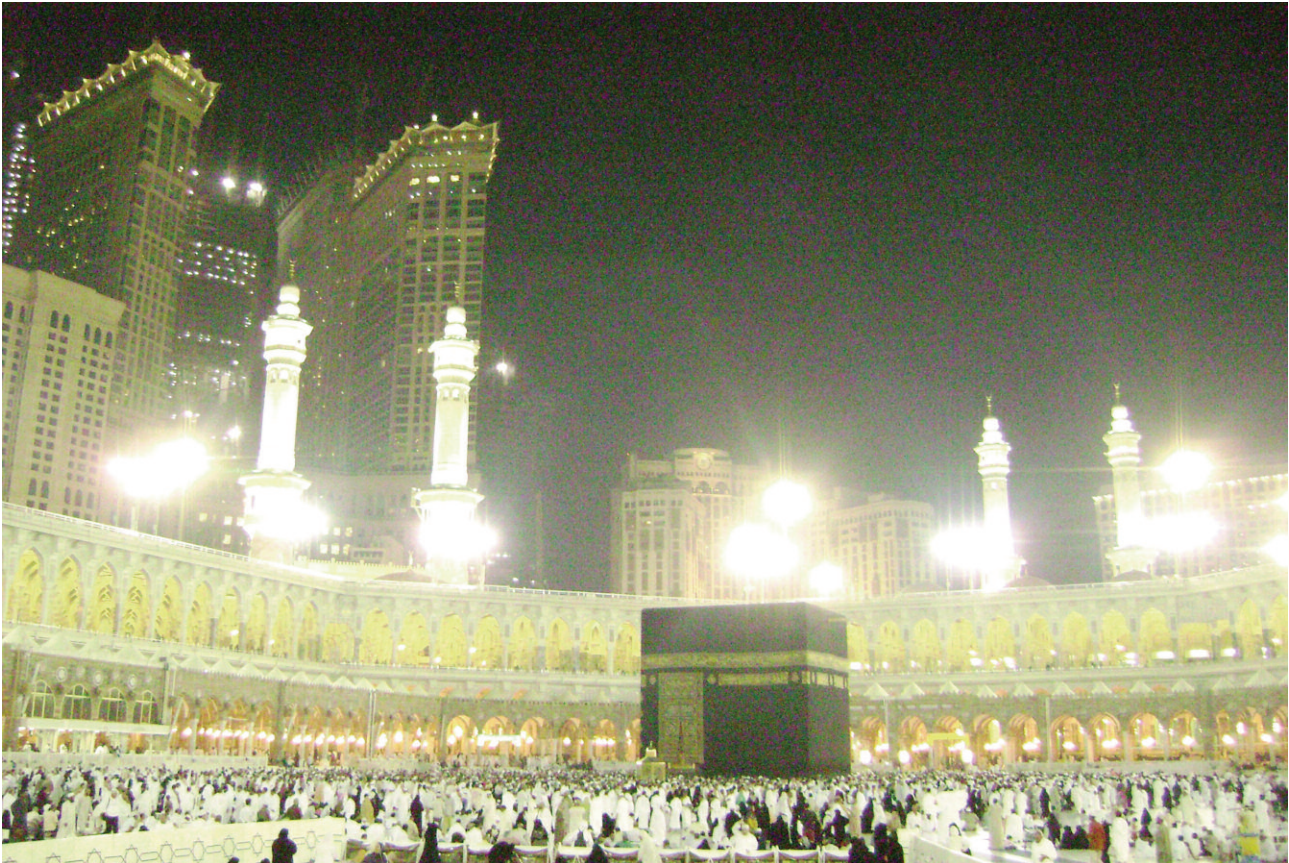
Alimak's latest contribution was two high-speed Alimak Scando 650 FC-S single with lifting heights of 345 meters (1,132 ft) each. These hoists are being used inside the tallest of the towers in the complex. Payload capacity is 2,900 kg (6,393 lbs) per hoist car and car length is 3.9 m (12.8 ft). Alimak's distributor in Saudi Arabia, Al-Maymanah For Trading handled the sale of the units.

High speed and high reach were not the only considera-



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The largest tower of Abraj Al-Bait stands at 595 m (1,890 ft). When the construction of the towers is completed, it will be one of the world's tallest buildings. The site of the towers is located across the street from the entrance to the Grand Mosque in Mecca.



The building complex is located meters away from the Masjid al Haram, which houses the Kaaba, the holiest site in Islam.

tions in opting for Alimak construction hoists. Alimak hoists were also chosen for their reliability and resistance to wear and tear.

Upon completion, the structure will have the largest floor area of any structure in the world with 1,500,000 sq m (16,137,600 sq ft) of floor space. The site of the complex is located across the street to the south from an entrance to the Masjid al Haram, which houses the Kaaba, the holiest site in Islam. To accommodate worshipers who visit the Kaaba, the Abraj Al-Bait Towers will have a large prayer room. The room will be able to accommodate nearly ten thousand of the over five million pilgrims traveling to Mecca annually to participate in hajj. The towers will house up to 100,000 people.

The clocks on each side of the hotel tower will measure 80 m high by 80 m wide (262 ft by 262 ft). They will be locat-

ed 530 m (1,738.85 ft) high, making them the world's highest-mounted and largest clocks.

The multi-million project is estimated to run until 2011, with the Alimak construction hoists operating for 20 hours a day, seven days a week.

DETAILS

Location:	Abraj Al-Bait Towers, Makkah, Saudi Arabia, 595 m
Application:	Obelisk complex for mixed use
Hoist types:	Six ALIMAK SCANDO 20/32 II
	Eight ALIMAK SCANDO SUPER FC 28/37 II
	Two ALIMAK SCANDO 650 FC-S 29/39
No. of hoist cars:	30
Capacity:	2,000 kg, 2,800 kg and 2,900 kg/car
Speed:	Up to 100 m/min
Lifting height:	Varies between 86 m to 350 m

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