



AMAZON RIVER, ALMEIRIM, PARA, BRAZIL

CASE STUDY

Alimak elevators enable servicing of electricity power lines over the Amazon River

Access anytime, anywhere

ALIMAK

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Alimak elevators provide access to electrical transmission towers

Two Alimak rack and pinion elevators were installed on transmission towers along the Amazon River. With each tower as tall as the Eiffel tower, the Alimak elevators provide access for critical servicing and maintenance.

A pair of Alimak rack and pinion elevators were installed to provide vertical access to two tubular towers carrying a 500 kV power cable across the Amazon River in Brazil. Located near the Equator, and with the nearest village of Almeirim an hour's travel by speedboat, the environment would prove challenging for any elevator company.

TALLEST IN SOUTH AMERICA

At heights of 295 metres, the transmission towers are the tallest of their kind in South America. With three 500 kV power lines and two 230 kV lines, the power line systems stretches 1,240 km through the Amazon

rainforest. Each Alimak elevator reaches lifting heights of 288.6 metres and features Alimak's proven rack & pinion drive system.

ACCESS TO CABLE STAYS AND AIRCRAFT WARNING LIGHTS

Alimak takes great pride in participating in the project, having been awarded the contract for supply and installation of two rack and pinion elevators by contractor, Isolux Corsan. Installed by Alimak and commissioned in March 2013, the elevators allow service and maintenance personnel to access power cable stays and aircraft warning lights located on each tower.



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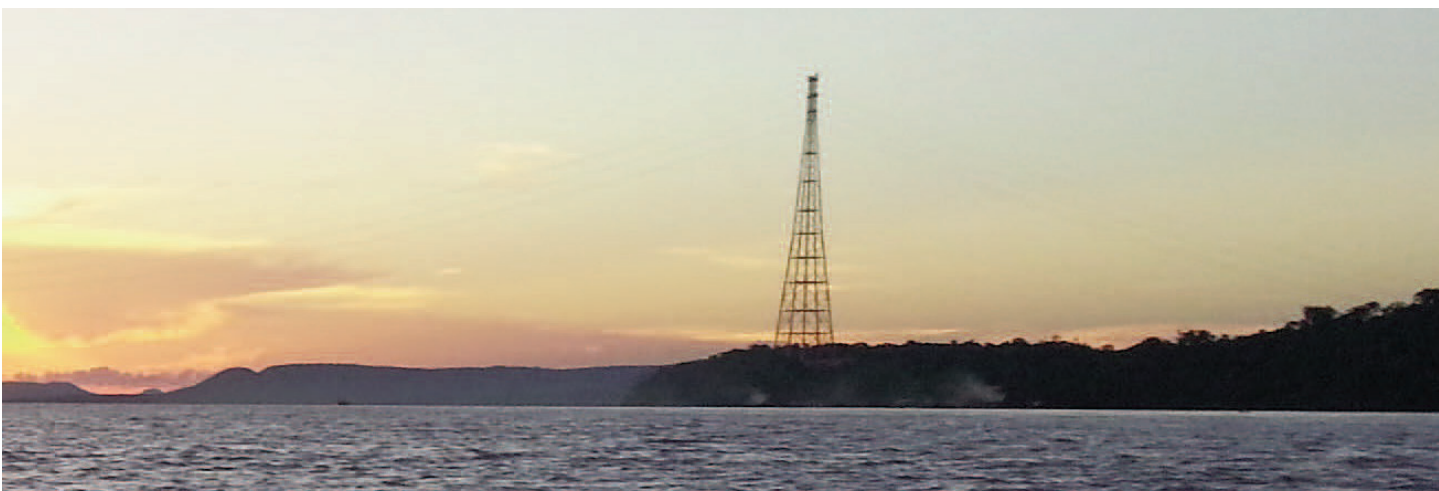
Located near the Equator, the central Amazon rainforest boasts extreme heat, humidity and heavy rains... a challenging environment for any elevator company. Alimak rack and pinion elevators adapt well to extreme environments, tight spaces and windy conditions, climbing to the very top of the highest structures around the world.

ELEVATOR DESIGN

Alimak elevators are designed to operate in the most demanding industrial environments around the world, both outdoors and within building structures. The Alimak rack and pinion drive system offers advantages over wire rope and hydraulic elevators: by carrying its own machinery, the Alimak elevator does not require an expensive machine room or load-bearing elevator shaft.

The rack and pinion elevator also offers a safety advantage over traction elevators: in a power outage, the car uses gravity and a centrifugal brake system to slide back to the nearest landing at a controlled speed. Should the elevator car exceed the rated speed when descending, the car is stopped automatically by the Alimak safety device.

The Alimak range of industrial elevators offers capacities of between 300 kg – 2,400 kg, and features 30 different standard car sizes up to a maximum 1.56 m x 3.0 m. Travel speeds of up to 1.0 m/s may be reached, with maximum lifting heights of 250 m achievable with standard accessories. Specially-designed elevators with capacities of up to 24-tons and 645 metre lifting heights may also be supplied on request.



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EXPERIENCED SUPPLIER

Alimak has considerable experience with installations within the power industry. Alimak elevators can be found on chimneys, silos, boilers, scrubbers, absorbers, precipitators and more, worldwide.

Ideally suited for operation in even the most extreme environments, the durable nature of the Alimak SE range of elevators has made it the perfect access solution for the most demanding conditions. From the freezing and exposed conditions of the Antarctic and Iceland, to the extreme heat of the Australian desert, Alimak elevators are built to last in world's toughest environments.

Alimak installations in extreme environments around the world include:

- Halley Research Station, Brunt Ice Shelf, Antarctica; 1 goods elevator
- Arab Potash Plant, Dead Sea, Jordan; 5 elevators
- Fjardaál Aluminium Smelter, Reydarfjordur, Iceland; 1 elevator
- Chimney Stacks, Mt Isa Mine, Australia; 2 elevators
- Yangtze River Crossing, Jiangsu Province, China; 2 elevators

ELEVATOR DETAILS

Location:	Almeirim, Para, Brazil
Installation year:	2013
Application:	Electricity transmission towers
Elevator type:	Rack and pinion
Elevator model:	Alimak SE 500 FC
No. of elevators:	2
Capacity:	500 kg (6 persons)
Elevator car size:	0.78 m 1.56 m 2.17 m (W x L x H)
Speed:	0.8 m/s
Lifting height:	288.6 m
No. of landings:	7



At heights of 295 metres, the transmission towers are the tallest of their kind in South America.

www.alimak.com

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