

CASE STUDY

Alimak industrial elevators provide vertical access for Genelba Power Plant

The Genelba Thermal Power Plant (CT GENELBA) is located in Marcos Paz, in the province of Buenos Aires in Argentina. The plant was initially a Simple Cycle gas-fired power plant until it was converted to a Combined Cycle power plant, comprised of four gas and two steam turbines, in 2019.

The upgraded project resulted in a multi-shaft configuration featuring two gas turbines, each driving its own generator. In 2020, the plant received an investment of \$350 million to expand its generation capacity and make power generation more efficient for more than 2.5 million homes across Argentina.

The plant is located just one kilometre from the Ezeiza transforming station allowing for the efficient supply of electricity to the country's highest demand area. CT GENELBA is also one of the largest thermal power plants in the country, providing 2.9% of Argentina's installed capacity of 1,253 MW.

The stakeholders at CT GENELBA required reliable, safe, and robust elevators to transport heavy tools, materials, and personnel at the plant. The two landings also needed to be accessed via opposite sides of the elevator car. A crucial demand of industrial elevators used in this application is that they reliably operate daily for routine control and maintenance works with minimal downtime.

After careful consideration, three Alimak SC 45 industrial elevators built on rack and pinion technology were installed at the site, one for each of the plant's chimneys.



Genelba Thermoelectric Power Plant, Buenos Aires, Argentina

Each chimney has two landings that are accessible with doors on opposing sides, providing 180° access to the elevator car. Alimak's industrial elevators feature the added safeguard of a bi-parting door lock safety cover to prevent accidental touch.

Safety is enhanced with the inclusion of an Alimak safety device, overload sensor, and mechanical interlocking door system to guarantee the highest safety standards. The elevator speed of 0.5m/s significantly improves efficiency at the plant to quickly transport personnel responsible for continuously monitoring vital emission measurements. The highly efficient helical gearbox also uses 30% less power consumption.

Alimak's SC 45 industrial elevators are popular for application in the power industry due to their robust car design with door and ramp options to ensure optimal performance in harsh conditions. Safety is further enhanced, and productivity is increased by removing the requirement for personnel to climb stairs for regular inspections.

ELEVATOR DETAILS

Location:	Marcos Paz, Buenos Aires Province, Argentina
Application:	Chimney lifts
Elevator type:	Alimak SC 45 Industrial FC
No. of elevator cars:	3
Capacity:	1,000 kg
Elevator size:	1,400 mm x 2,400 mm
Speed:	0.5 m/s
Lifting height:	32 m
No. of landings:	2
Installation:	2022

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