



BURRINJUCK DAM WALL, NEW SOUTH WALES

CASE STUDY

Self-leveling Alimak elevator for the inclined Burrinjuck dam wall

Access anytime, anywhere

ALIMAK



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Self-leveling Alimak elevator for the inclined Burrinjuck dam wall

Alimak's robust and reliable rack and pinion elevators are relied upon in a wide variety of tough industrial environments. Our long history includes over 50 years of experience in the provision of high quality vertical access solutions for the power industry.

A particularly complex customised industrial elevator system was required for the challenging geography of the WaterNSW Burrinjuck dam wall. The lift provides safe access to the dam outlet works for WaterNSW maintenance purposes and also services the Meridian Energy hydro power station. The heritage listed hydro electric dam which is North West of Canberra, Australia was completed in 1928. Efficient and reliable transportation between the top of the dam wall and the power station itself at the base is a vital requirement.

This was complicated, however, by the inclined, curving surface of the dam wall. With Alimak's earlier experience in similar projects, Alimak designed a

specialised industrial elevator system which is capable of securely travelling through the curved section at an angle of 53 degrees – no problem for Alimak engineers to solve. The vertical travel distance is 68 metres and, including the curved section, the elevator travels a total of 80 metres.

In order to transport passengers and cargo safely and comfortably, the elevator car is designed to automatically level itself throughout the journey so that the floor remains horizontal as it traverses the curving form of the dam wall. The car size of over two metres also provides for timely and appropriate response to accident and emergency situations requiring the use of a stretcher.



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In regular operation the car size allows for the efficient transport of drums containing hydraulic fluid which are required for the hydro power station at the base of the dam.

In addition to this highly specialised industrial elevator, the comprehensive vertical access system also provides a crane at base level for lowering drums to the bottommost walkway.

Beyond Alimak's strong reputation for engineering innovation and problem solving ability, we also worked closely with WaterNSW over a four year period during the wider project development. This ensured that the eventual solution would meet all of their needs and overcome the specific challenges involved.

ELEVATOR DETAILS

Location:	Burrinjuck dam, New South Wales, Australia
Application:	Hydro power station dam wall
Elevator type:	Rack and pinion
Elevator model:	Alimak SE 1000 FC
Capacity:	1,000 kg
Elevator car size:	2.20 m x 1.04 m x 2.17 m
Speed:	0.6m/s
Lifting height:	80 m
Inclination	53°
No of landings	3



Burrinjuck dam wall, New South Wales, Australia