

Case study:

Five Alimak elevators at work in an extremely harsh environment



Arab Potash Plant, Dead Sea, Jordan

ALIMAK

Case study:

Five Alimak rack and pinion elevators has been installed at Arab Potash Plant located on the shore of the Dead Sea in Jordan. It is an extremely harsh environment which sets high demands on the elevators durability and reliability.

Alimak has supplied five Alimak rack and pinion-driven elevators for Arab Potash Co. Ltd's plant optimisation and production expansion project. The project is located on the shore of the Dead Sea approximately 110 km (68 miles) from Amman, capital of the Hashemite Kingdom of Jordan.

Arab Potash is producing potash for agriculture, industrial potash for the chemical industry, industrial salt, bromine and NPK fertilizers. Fertilizers and industrial grades are produced from the unique brines of the Dead Sea in a naturally driven environmentally-friendly process.

Elevator applications

The Alimak elevators will be installed to facilitate maintenance and inspections at the existing plant's product dewatering structure, screen and compaction structure, product centrifuge structure and carnallite process structure. One elevator will also be installed at the compaction structure at Arab Potash's new compaction plant which is expected to be operational in the coming year.

Extremely harsh environment

Noted as the world's saltiest bodies of water, the Dead Sea is an extremely harsh environment; which sets high demands on the elevators durability and reliability. To handle the severe and abrasive atmosphere, the elevator cars have been manufactured of stainless steel and are also equipped with the modern ALC-II microprocessor-based control system, in-car fan, auto alarm, emergency phone, and overload sensing device.

The Alimak elevators are reaching heights of between 20 m and 38 m (65' and 124') and have a payload capacity of 1800 kg (3968 lbs.). Each is equipped with frequency control motors for smooth operation.



DETAILS

Location:	Arab Potash Plant, Dead Sea, Jordan
Project:	APC Plant Optimisation and Production Expansion Projects
Elevator type:	Rack and pinion
Elevator model:	ALIMAK SE 1800 FC
No. of elevator cars:	5
Capacity:	1800 kg
Elevator car size:	1.56 m x 1.95 m x 2.17 m (W x L x H)
Speed:	0.6 m/s
Lifting height:	Varies between 20 m and 38 m