



SHIP UNLOADER - JORDAN

## ENCLOSED UNLOADER BOOSTS AQABA'S ENVIRONMENTAL CREDENTIALS

As part of Aqaba Port's modernization, joint venture enterprise UTE TR PHB Jordan was tasked with replacing a sulfur-handling grab crane with a more environmentally friendly solution. With a legacy of over four decades of enclosed, safe sulfur handling, this is where Bruks Siwertell came in.

### Challenge

Sulfur is an unstable, corrosive material that can be harmful to the environment. Correct handling is critical to prevent unnecessary environmental damage from dust emissions or spillage within a port. However, sulfur in an enclosed space is problematic, as it has the potential to self-ignite and explode.

The Jordanian port of Aqaba needed to refurbish, upgrade, and expand its existing jetty to ensure a first-rate fertilizer handling facility. Used by Jordan Phosphate Mines Co, the port receives sulfur destined for the nearby fertilizer plant, and therefore required a safe, high-capacity solution, which could meet production demands and protect the environment.

### Solution

Bruks Siwertell collaborated with engineering, procurement and construction (EPC) contractor UTE TR PHB Jordan to equip the port with a high-capacity Siwertell ship unloader, fitted with Siwertell Sulfur Safety System (4S) technology.

4S is a two-stage system that works on a preventative basis, seeking to eliminate the risk of explosions or fires by monitoring and removing ignition conditions. Its second-stage functions are containment and extinguishing. In the unlikely event of an explosion, pressure is harmlessly vented into the atmosphere. If a fire occurs, an automatic fire extinguishing system is activated and the system is shut down.

The unloader replaces a grab crane and introduces a new dimension of bulk handling to the port, unloading sulfur with virtually zero dust emission and no cargo spillage.

### Results

Environmental performance was an important factor in Bruks Siwertell securing the contract. Aqaba is located at the northeast tip of the Red Sea,

### FACTS

#### CATEGORIES:

- Ship Unloading

#### MATERIALS:

- Sulfur

#### CUSTOMER:

Jordan Phosphate Mines Co. Plc

#### ADDITIONAL FACTS:

Unloader model	ST-640-M
Unloading capacity	1,200t/h
Maximum ship size	Panamax

#### PRODUCTS:

- Ship unloading

#### LOCATION:

South Port in Aqaba, Jordan

### FOR MORE INFORMATION, PLEASE CONTACT US

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which is known for its unpolluted waters, coral reefs and beaches. The port is now equipped with a rail-mounted Siwertell ST 640-M screw-type unloader capable of discharging sulfur from vessels at a continuous rated capacity of 1,200t/h.

The port no longer has concerns about spillage or dust creation, as the unloader is totally enclosed, starting at the ship's hold with a material intake below the cargo level, and continuing to the discharge point at the receiving belt conveyor.