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## **OUTPERFORMING ALL TRADITIONAL ALUMINA HANDLING TECHNOLOGY**

**Our totally-enclosed Siwertell screw-type unloaders outperform all traditional alumina unloading options, such as grab cranes and pneumatic systems. This is because Siwertell unloaders eliminate cargo losses from spillage and ensure minimal cargo degradation through gentle cargo handling.**

Bruks Siwertell's ship loaders and conveyors are well-established as preferred bulk material handling systems for alumina across the world.

### **ALUMINA: A VALUABLE BULK COMMODITY**

Alumina (aluminum oxide) is a valuable, powdery bulk commodity used primarily in the production of aluminum. This lightweight metal has important qualities of strength, conductivity, flexibility and resistance to corrosion, lending it to uses ranging from food packaging to airplane construction. Unlike many metals and other materials, aluminum can be recycled indefinitely without suffering any reduction in quality.

#### [READ CUSTOMER CASES](#)

### **CAREFUL BULK HANDLING AND ZERO SPILLAGE SAVES A LOT OF MONEY**

Aluminum smelting is extremely energy intensive and the process is very sensitive to the amount of powdery fines in the alumina. If alumina is not handled carefully, the level of fines in a shipment increase.

Adopting Siwertell unloaders can deliver substantial savings to an alumina operation through the virtual elimination of fines, so smelting costs are controlled.

Our totally enclosed unloading technology also ensures that customers receive all their shipped cargo; nothing is wasted through spillage.

#### [HOW TO REDUCE COSTS IN ALUMINA HANDLING](#)

### **EXCELLENT CUSTOMER EXPERIENCE**

Bruks Siwertell customer Aluminij Mostar, based in Bosnia and Herzegovina, found that alumina discharged with a pneumatic unloader has a fines content with a particle size of less than 45µm of up to five percent.

The company had ten years' experience of using a 5 000 S, road-mobile Siwertell unloader, equipped with a double-loading bellows system and radio remote control, for discharging alumina at the Port of Ploče in Croatia. During that time the alumina had an average fines value of between 0.2 and

0.3 percent. The reduced amount of fines had a hugely beneficial impact on the plant's energy consumption.

A major factor in Aluminij Mostar's initial decision to purchase a Siwertell system was its desire for a clean, environment-friendly operation. In addition to the clean operation and the small percentage of fines, the company found that it had made a very sound decision in terms of performance, efficiency and reliability. Commenting on its unloader in 2001, it said that the machine was operating to its complete satisfaction, handling over 100,000 tonnes of alumina per annum, and exceeding its specified unloading rate by 30 percent. The company described it as: "environmentally superior and very efficient".

Operations at Ploče ceased in 2006. By that time the unloader had logged 10,550 hours, discharging over 1,250,000 tonnes of alumina, at an overall through-ship rate of nearly 120t/ h.

### **ENVIRONMENTALLY UNBEATABLE**

Siwertell unloaders have unbeatable environmental performance with zero spillage and virtually no dust creation. The clean, quiet nature of Siwertell unloaders is vital for alumina and other dry-bulk importers with facilities close to centres of population and commerce who are finding it difficult to meet increasingly stringent environmental regulations.

### **UNLOADERS TO SUIT ANY SIZE OF OPERATION**

Bruks Siwertell offers unloaders with rated capacities up to 3,000t/h. For smaller-scale operations we have a range of road-mobile and port-mobile unloaders. Both units offer a flexible solution for operators discharging alumina at multiple locations.

### **CLEAN ALUMINA LOADING IN BRAZILIAN PORT**

All our ship loaders provide a dust-free alumina handling operation with no spillage. Environmental benefits were key factors in Hydro's decision to award this Brazilian contract to Bruks Siwertell.

The Siwertell HST-1800 aeroslide unit is used to load Kamsarmax vessels of up to 80,000 dwt at a rated capacity of 2,500t/h at the company's Alunorte production plant in northeast Brazil.

[REAd FULL customer CASE](#)

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### **CAPACITIES TO SUIT EVERY ALUMINA OPERATION**

Bruks Siwertell offers a full range of tailor-made ship unloaders and ship loaders, fixed and traveling, along with conveyors; all offering highly efficient, reliable alumina handling. Our road-mobile unloaders and conveying systems are ideal for smaller alumina operations, particularly when an operator uses more than one port.

[Customer case on alumina handling](#)