

Technology focus from Storvik



Real-time model

Storvik's HAL Vibrocompactor is noted as probably the world's best vibrating compactor for producing green pre-baked carbon anodes. (Fig 1)

Storvik's HAL Vibrocompactor has more than 50 years of proven lifetime showing its robustness and capacity in operations at several of Hydro Aluminium's plants. With the latest delivery of the Storvik HAL Vibrocompactor to a Russian customer our vibrating compactor is a well proven technology producing probably the world's best green pre-baked carbon block anodes. (Fig 2)

Regular customers

Customers of Storvik are typically top tier aluminium producers with the highest standards and most challenging criteria's to amongst others consistency in quality of carbon block anodes as well as the Vibrocompactors production capacity, footprint in terms of size, efficiency and automation in operations with limited need for operation personnel and very low maintenance cost.

Carbon block anodes produced with Storvik HAL Vibrocompactor are characterized by lower resistance in electrolysis resulting in higher current throughput and consistency in quality

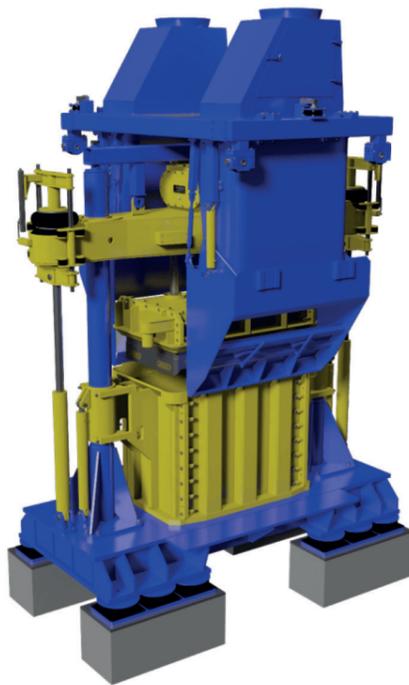


Fig 1. The vibrocompactor

resulting in low amount of anode scrap rate.

Quality standards

The standard version of the Storvik's HAL Vibrocompactor comes with an annual production capacity of more than 250 000 tons per year of carbon block anodes, with a typical average density quality of 1.65 g/cm³ GAD. The compactor is today operating with capacity 35 t/h produced carbon block anodes with a consistent quality of anodes operating at current density > 1,0 A/cm² in electrolyser.

Improvement is key to Storvik and nevertheless the capacities the Storvik HAL Vibrocompactor can showcase, the company is restless in their improvement work. Storvik has a larger development project going that will offer our sophisticated customers amongst others mechanical improvements such as fewer moving parts, more sophisticated sensorics for better data harvesting, as well as to improve operational intelligence and excellence. Storvik will together with improved design offer a full fledge IoT/ Industry4.0 version of the Vibrocompactor, resulting in less mechanical stress hence less maintenance, improvement in power exchange ratio and reduction of energy

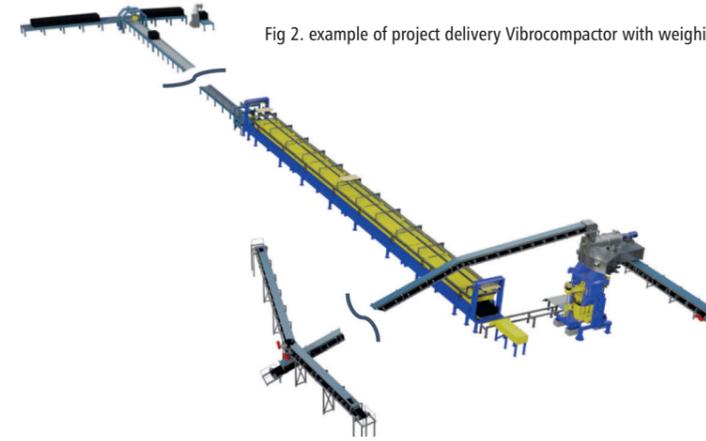


Fig 2. example of project delivery Vibrocompactor with weighing, carbon mass conveyors and carbon block anode cooling conveyors

consumption in terms of voltage drop, and will ultimately result in better carbon block anodes. (Main image and Fig 3)

Virtual reality

Storvik has introduced its proprietary real-time 3D Virtual reality process simulator which will be used extensively in design and planning phase as well as project execution.

The 3D process simulator will help increase accuracy and quality in each delivery and support our paramount

objectives with each project delivery.

The 3D process simulator is used for all parties involved in a Storvik HAL Vibrocompactor delivery project for familiarizing on the equipment to be installed, its functions and processes. All parties involved get a clear picture of the hardware and processes and effectively eliminates costly misunderstandings, verify, and optimise mechanical integrity and interfaces, control moveable parts and processes, and so on.

Additionally, the 3D process simulator

will help actively in planning of commissioning, in the execution of the commissioning as well as educating the operational personnel and ease the handover, as well as making long-distance support effective.

Storvik has the highest standards for its products and deliverables, where the Storvik HAL Vibrocompactor is no exception, we put our honour always to deliver on agreed time and budget with the desired capacity, redundancy, and quality. ■

Find out more: www.storvik.no

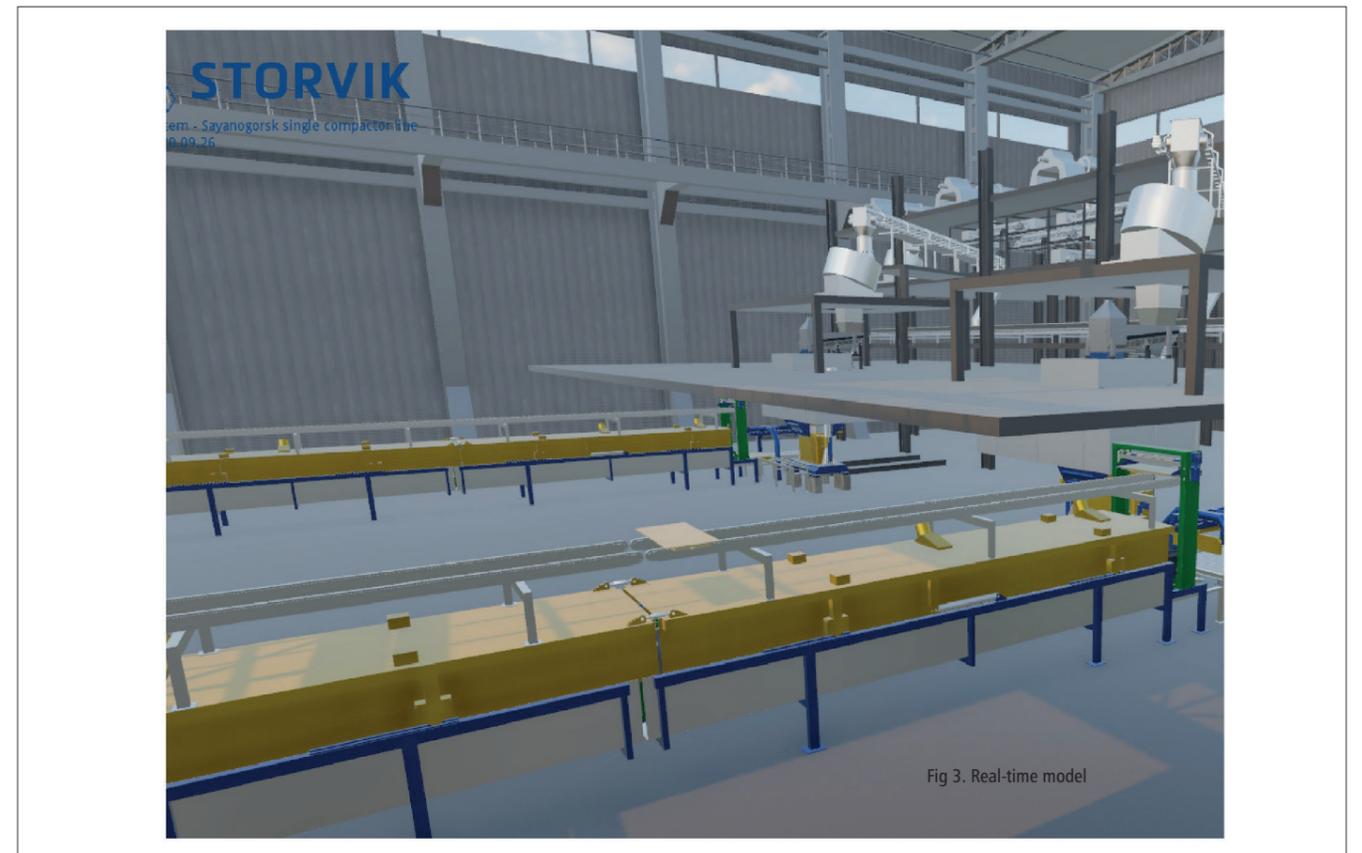


Fig 3. Real-time model