

PRESS RELEASE

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Automated intralogistics for Logan Aluminum - Coils in breathtaking heights

Vollert Anlagenbau, intralogistics specialist for the global aluminum industry, is developing a comprehensive intralogistics system with a high-bay warehouse and various transport systems for supply and removal in the warm and cold rolling areas for Logan Aluminum. The high-bay warehouse serves as the interface between the rolling mills at the site in Russellville, Kentucky, USA. At a height of 42 m and a payload of up to 30 tons, it contains the largest stacker cranes ever built by Vollert.

Logan Aluminum in Russellville, Logan County, Kentucky, is North America's largest plant for sheet metal in the can industry, supplying more than 45 % of the North American can market and producing over 900,000 tons of aluminum per annum. Logan Aluminum charged logistics specialist Vollert from Germany with construction of an intralogistics system to link its hot and cold rolling areas. They teamed up with Logan for upstream planning to develop a modern plant layout that ensures gentle automated transport and interim storage of the sensitive coils between the individual processing steps. A 42-meter-tall and 130-meter-long single-aisle high-bay warehouse operated by a stacker crane forms the core of this setup. It is the largest plant of its kind implemented by Vollert to date. The 10-level high-bay warehouse, capable of storing of coils that weigh up to 30 tons a piece, will increase storage capacity by nearly 50 %. Even and quick cooling of the coils down from a starting temperature of up to 360 °C is provided by active single bin cooling.

Transport from the hot roller by AGV

The new high-bay warehouse will have four entries and exits to the hot and cold rolling mills. The connection to the hot roller, about 350 meters away, is provided by an automated guided vehicle (AGV) that removes the coils from the Vollert shuttle and supplies them to the stacker crane in the high-bay warehouse without any interim steps. Automated transport in the cold rolling area is provided by three coil transport lift trucks. A Vollert transfer table with extensible lift truck supplies the cold roller by directly loading and unloading the coils from the rolling mill pallet at the existing pallet circulation.

Sensitive, safe, and quick

One challenge for Vollert's experts was in designing the automated intralogistics processes, where Vollert's conveyor systems interact with the existing processes in the present cold rolling mill. Automated transport permits gentle and accelerated processes in spite of the sensitive outer skin of the aluminum coils. In interaction with the entire conveyor technology, the high-bay warehouse permits 36 movements of the stacker crane, equaling 18 storage and retrieval operations, per hour. The control technology for this was developed in cooperation with FAS from the USA, an experienced Vollert partner. US companies took care of steel construction for the high rack as well, while Vollert supplied the structural engineering and plans.

Daniel Arbuckle, Sr. Mechanical Engineer at Logan Aluminum: "Logan Aluminum keeps investing in new technologies to increase productivity and digitalization, as well as in striving for greater ecological sustainability. Our new intralogistics concept allows us to take the logical next step to improve our internal processes and increase efficiency. Vollert acts as a competent heavy-load intralogistics expert with comprehensive industry experience by our side."

Lars Strobel, head of sales for intralogistics systems at Vollert: "Logan Aluminum is taking an important step into the future with construction of its central high-bay warehouse. We have worked together to develop an efficient concept and modern plant layout with unique dimensions that will accelerate the processes in production as a whole. We are happy for this chance to support Logan Aluminum in this pioneering project."

The intralogistics system is to be completed by mid-2025.

About Vollert Anlagenbau GmbH

As specialists for heavy loads and large parts, Vollert Anlagenbau GmbH develops turnkey intralogistics concepts for the aluminum and metal industry. As a general contractor and full-service provider, the service range encompasses state-of-the-art material flow, storage and packaging technology as a stand-alone solution or integrated into a larger logistics environment.

Whether fully automated mega-high bay systems for aluminum coils, intelligent material flow systems for the leading aluminum extrusion press manufacturers, the world's most efficient stacker cranes for the storage of sheet metal plates, automatic crane systems for 50 tons and more or the most modern surface coating systems – Vollert is everywhere.

Vollert's plant and machine solutions are deployed in more than 80 countries around the world and in Asia and South America the company's own subsidiaries strengthen in addition the sales activities. Vollert employs more than 300 people at its company headquarters in Weinsberg. **www.vollert.de**

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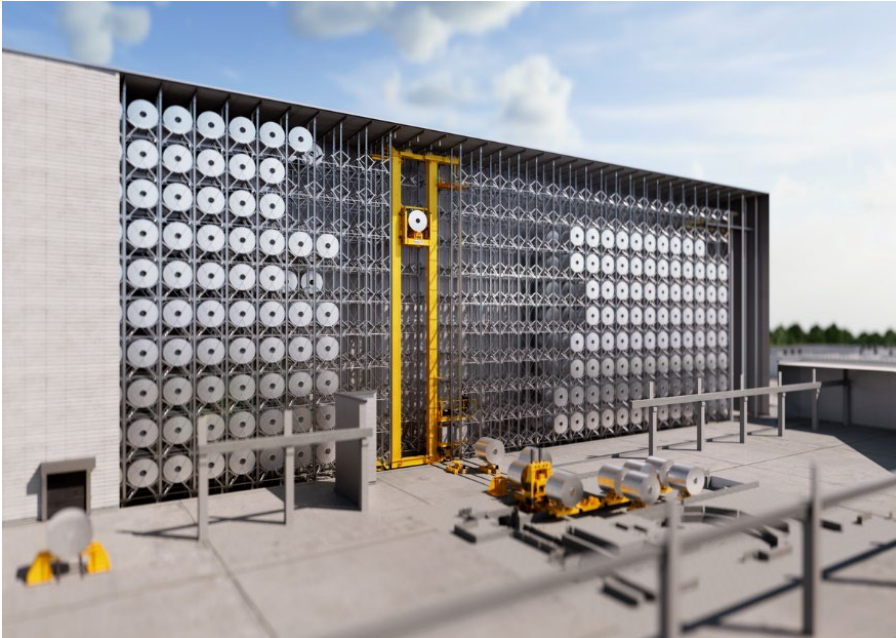


Image 1 (Source: Vollert)
Vollert is developing a 42-m-tall high-bay warehouse for Logan Aluminum, USA. Vollert is also supplying automated systems for internal transport of aluminum coils at temperatures of up to 360 °C and weights of up to 30 tons without causing any damage.