

PRESS RELEASE

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Automated from coil to fully recyclable aluminum packaging

Vollert designed a fully automated intralogistics system for the flexible packaging specialist Aluflexpack (AFP) in their production plant in Drniš near Split in Croatia. In addition to a high-bay warehouse with a special treatment zone, the material flow concept for several hundred coils includes the complete automated transport of the very heavy aluminum coils of different lengths and diameters.

Whether foils, lids, containers or pouches – the flexible packaging expert Aluflexpack specializes in the converting of aluminum and plastic foils into high-quality final products. But before the foil for coffee capsules or dairy products, for example, leave the plant, aluminum coils weighing several tons must first pass through numerous processing steps. In the course of expanding Aluflexpack's Croatian plant in Drniš, which was founded in 1959 and has been part of the AFP Group since 2003, Vollert developed a fully automated intralogistics system for this purpose. Once delivered by truck, a crane picks up the aluminum coils and sets them down on Vollert's conveyor system. Within the plant, their transport to the high-bay warehouse (HBW) and to the processing machines is then fully automated. In several work steps, the coils are printed, punched, coated and slitted.

Highly stored, efficiently served

For Aluflexpack, it is the first coil high-bay warehouse in the production. The facility is centrally located in a new hall and has a single-aisle layout. A stacker crane and several shuttles sort the coils into the 27 m high and 120 m long warehouse, which reaches up twelve levels and holds a total of several hundred coils. To the left and right of the HBW are the processing lines, which are connected to the central HBW via seven inputs and outputs. "The stacker crane and the shuttles are coordinated and controlled by Vollert's PLC control technology and transport control system: in the process, the coils are stored and retrieved fully automatically and by the shortest route, and transported to the next processing step," explains Lars Strobel, Sales Manager Intralogistics Systems at Vollert. The stacker crane covers a distance of 2.5 m per second, while the lift takes place at 0.6 m per second. Vollert operates the shuttles entirely with an inductive power supply via underground cables, so that the paths on the site remain passable for internal transport. "With our automated intralogistics, up to 30 coils per hour can be stored and retrieved," says Lars Strobel, illustrating the efficiency of the entire system.

At the entrance of the HBW, the delivered coils are automatically measured and stored in three different areas depending on their weight and dimensions. All carts, the shuttles as well as the stacker crane, are equipped with special centering devices that allow the transport of different spool lengths. The stacker crane also has an adjustable telescopic fork that is automatically adapted to the transport of the different coil dimensions.

Constantly environmental conditions

A significant share of the coil capacity, which have to be tempered for high-quality coating, can be accommodated in a special treatment zone in the high-bay warehouse in Drniš. "It forms an extra, specially insulated area in the warehouse, which is separated by an automatically operated protection gate," Lars Strobel knows. "The gate allows the stacker crane to access this zone, which nevertheless has constant environmental conditions."

As general contractor, Vollert took over the entire engineering, including assembly, and supplied not only the heavy-duty intralogistics systems but also the control technology and transport logistics control system.

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 250 people at its company headquarters in Weinsberg. **www.vollert.de**

Press contact

Frank Brost

Head of Marketing/Communications

Vollert Anlagenbau GmbH
Stadtseestr. 12
74189 Weinsberg/Germany
Phone: +49 7134 52 355
Fax: +49 7134 52 203
E-mail: frank.brost@vollert.de



Image 1 (Source: Vollert)

Vollert's material flow concept for Aluflexpack (AFP) includes, in addition to storage in the high-bay warehouse, the complete automated transport of aluminum coils weighing several tons in various lengths and diameters at the production site in Drniš near Split, Croatia.