

Automated Guided Vehicles are on the rise at Sauer Polymertechnik.

Sauer Polymertechnik is once again relying on Jungheinrich's automation expertise: In a further commission, the customer decided to expand the pallet high-bay warehouse built in 2015 with an Automated Guided Vehicle System (AGVS) consisting of eleven automated ERC 213a stacker trucks. In this busy plastics production company, Automated Guided Vehicles (AGVs), which are ideally suited to cramped storage areas thanks to their compact dimensions and utmost precision, ensure maximum efficiency and increased throughput in two-shift, around-the-clock operation.

STATE-OF-THE-ART PALLET HIGH-BAY WAREHOUSE.

Whether long transport distances of up to 870 metres, or article quantities of around 7 million per day – thanks to the time- and resource-saving combination of the Automated Guided Vehicle System and an automatic high-bay warehouse with stacker cranes and transverse transfer cars, the Föritz 1 and Föritz 2 plants can now easily handle up to 100 transports per hour. The seamless interaction of the racking system, software and controllers enable the compact warehouse system to achieve high storage and retrieval volumes with a low error rate.

Two plants, one strategy for success.

MAXIMUM SAFETY DURING TRANSPORT.

The 38-metre high Sauer Polymertechnik warehouse with three aisles and double-depth stacking makes an impressive sight. At a highly complex production site like the one in Föritz, the issue of safety plays a crucial role. After all, the AGVs drive to an impressive 222 storage locations during a working day. The AGV's robust construction with steel frame and enclosed chassis ensures optimum stability. Intelligent safety systems with an integrated personal protection scanner reliably detect obstacles on the transport route, thereby protecting people and loads from accidents.

SUSTAINABLE POWER, PRECISION CONTROL.

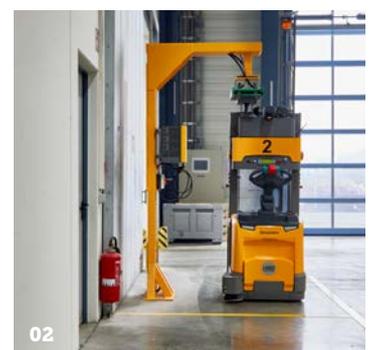
Thanks to modern lithium-ion technology, the AGVs boast consistently high availability. The AGVs are able to charge independently and quickly during short periods of downtime thanks to the automated charging function. All logistics processes are comprehensively controlled by the Jungheinrich Warehouse Management System (WMS). The Automated Guided Vehicles, in turn, communicate with the WMS via the Jungheinrich Logistics Interface. Every work step is precisely planned, from materials handling equipment to storage in the automated warehouse – ensuring that each and every item, from sledges to ride-on toys, arrive safely at their destination.

END-TO-END LOGISTICS FROM A SINGLE SOURCE.

An impressive overall AGV concept and the success of the previous collaboration in the automated high-bay warehouse made Jungheinrich the natural choice for the project. The AGVs were set up without interrupting ongoing production operations, and any problems during operation were quickly rectified by Jungheinrich in its role as service partner. From planning and implementation to maintenance and service, the project brought together two powerful allies who can look forward to many years of successful automation projects.

01
On a daily basis in production, the Automated Guided Vehicles visit a total of 222 storage locations along transport routes of up to 870 metres.

02
Decentralised charging stations in production enable fast booster charging with optimal use of space.



THE PROJECT AT A GLANCE



Customer:	Sauer Polymertechnik GmbH & Co. KG
Sector:	Chemical and pharmaceutical industry
Company size:	720 employees
Location:	Föritz, Germany
Warehouse size:	Approx. 3000 m ²

CHALLENGE

Integration of an Automated Guided Vehicle System into the existing warehouse system in order to automate the transport from production to the automated pallet high-bay warehouse and to handle more transport tasks per hour in the future.

JUNGHEINRICH SOLUTION

Eleven ERC 213a Automated Guided Vehicles with lithium-ion technology for the safe transport of finished product pallets, optimally controlled by the Jungheinrich Warehouse Management System.

RESULTS

As well as significantly increasing goods throughput, the automatic charging of the Automated Guided Vehicles requires fewer resources and takes up less time.

IMPRESSIONS

The AGV carries out up to 100 transport tasks per hour in order to transport the finished products to the materials handling equipment in the high-bay warehouse.



Full speed ahead: The AGV transports the required raw materials to the production machines quickly and effortlessly.



A wide range of services from Jungheinrich ensure smooth operation of the AGV at all times.