

CASE STUDY

RAPUNZEL,
GERMANY



AUTOMATED LOGISTICS FOR ORGANIC FOOD

THE CUSTOMER AND THEIR REQUIREMENTS

Rapunzel Naturkost GmbH, based in Legau, chose to automate with Swisslog due to positive growth forecasts and steadily increasing customer demands on supply capacity. This comprehensive expansion at the logistics center in Bad Grönenbach, in the Bavarian district of Unterallgäu, was a strategic decision "We are striving to become even more efficient," says logistics manager Stefan Schmaus. Therefore, we are working together with Swisslog to create new capacities for storage and order picking as well as for incoming and outgoing goods on an area covering approximately 11,200 square meters.

Rapunzel Naturkost is one of Europe's leading producers of certified organic, natural and vegetarian food. The products are sold via organic shops, natural food and health food stores, organic supermarkets or the company's online shop. The company has enjoyed continuous growth since it was founded in 1974. Currently, it sells around 600 products in more than 35 countries and

generates sales of a solid 218 million euros with 400 staff members (as of: 2019).

The logistics expansion is the largest single construction measure in the history of Rapunzel. The overall investment totals approximately 18 million euros. The project, which is scheduled for completion in spring 2021, was preceded by an extensive study and design phase. "Swisslog provided us with excellent advice right from the outset and planned our logistics down to the very last detail," emphasizes Schmaus: "We are placing our trust in Swisslog's special expertise in logistics and the food industry. We intend to use this to help manage our company growth with the same quality as before, but with greater capacity and faster processing."

THE SOLUTION

In addition to the logistics center expansion in Bad Grönenbach, measures have been implemented to streamline workflows and further improve the staff working conditions. As a result, the logistics floor space will increase by 86 percent from 13,000 to 24,200 square meters. The storage volume will increase

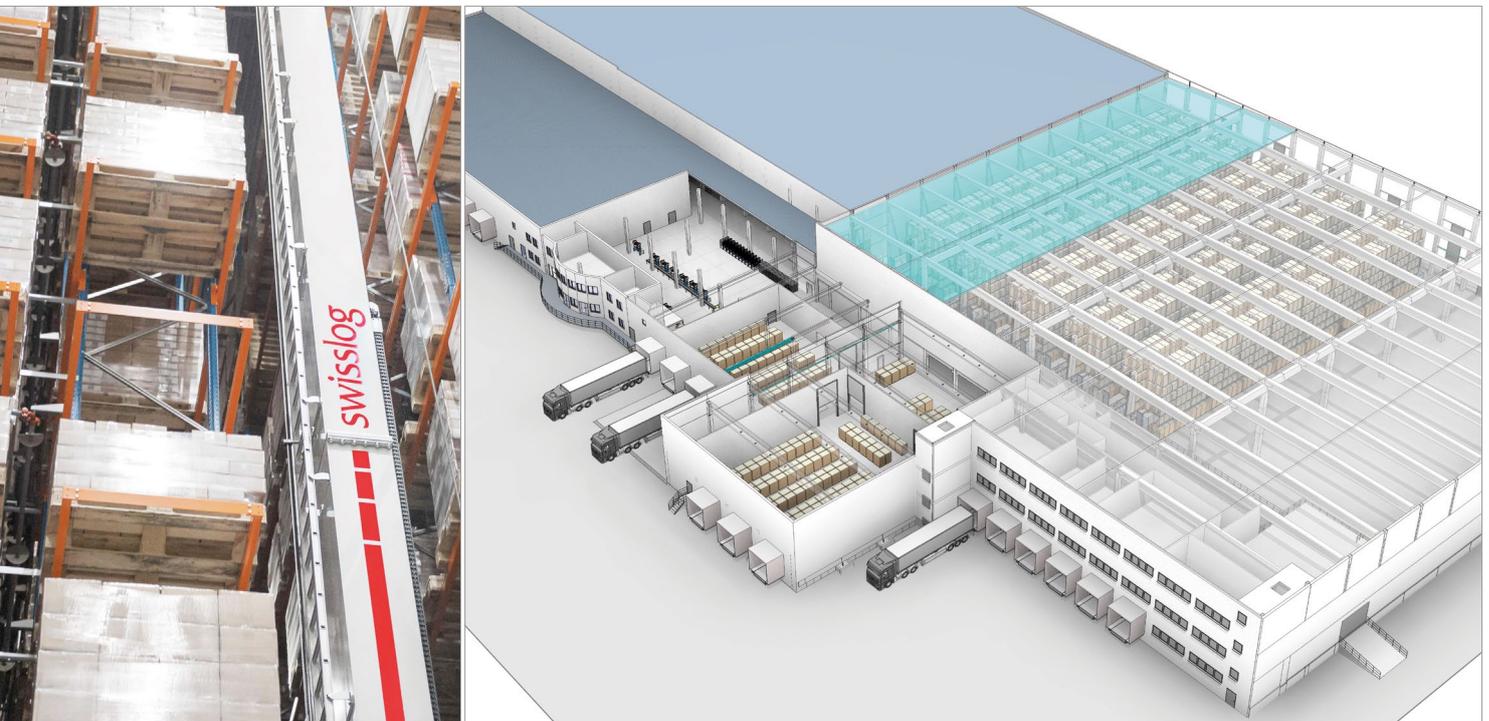
by around 50 percent from 15,000 to a total of 22,560 storage spaces.

PALLET HIGH-BAY WAREHOUSE

Swisslog is implementing an automated high-bay warehouse for Rapunzel which features 7,560 double-deep pallet spaces, 605 of which are picking spaces on the lowest level. The high-bay warehouse features six aisles with six "Vectura" stacker cranes. Vectura has undergone continuous development, making it a proven, state-of-the-art pallet technology. In addition to its reliability and scalability, Vectura is highly durable, has short installation and commissioning times and low maintenance costs, making it an extremely impressive technology.

"We are placing our trust in Swisslog's special expertise."

Stefan Schmaus,
Head of Logistics, Rapunzel Naturkost GmbH



The new warehouse is equipped with six Vectura stacker cranes and offers 7,560 pallet spaces.

Compared to traditional stacker cranes, Vectura reduces energy consumption by 20 percent, thanks to its innovative mast design and lighter crane weight. Vectura cranes are reliable and a low crane weight means less wear and tear, while high quality production reduces maintenance and service costs. It is pre-assembled and tested for plug & play operation and ensures a minimum time for installation and commissioning on site.

CONVEYOR TECHNOLOGY

Swisslog's "ProMove" is used as a connecting conveyor system for Rapunzel. This multifunctional, fully automated system is designed to transport pallets with loads of up to 1,500 kilograms. The ProMove has

a flexible design and can be configured to meet the most diverse requirements in pallet transport. Each conveyor element features drive technology that controls acceleration and deceleration to stabilize the loads. The motors are efficient, run at adjustable speeds and only for as long as necessary, which also saves energy. Similar to the Vectura stacker crane, ProMove is installed using a plug & play system. Rapunzel also features an integrated system for automated pallet labeling on the conveyor lines.

DECISION FOR THE FUTURE

"This project is a decision for the future of Rapunzel", underlines Founder and Managing Director Joseph Wilhelm: "Making a

decision of such magnitude requires courage and confidence in knowing that you're doing the right thing."

For Swisslog, Rapunzel is yet another relevant and representative reference in organic food logistics and automated pallet technology. This example highlights the special expertise in food and retail applications.



Natural food products from Rapunzel

DATA AND FACTS AT A GLANCE

LOGISTICS EXPANSION AT RAPUNZEL NATURKOST

Planned start of operations	2021
Technologies from Swisslog	
Automated pallet high-bay warehouse	7.560 double-deep pallet spaces
Stacker cranes	6 Vectura stacker cranes
Automated conveyor technology	ProMove + automated pallet labeling

ADVANTAGES

- High-performance logistics for greater productivity and lower error rates
- Streamlined workflows
- Improved working conditions
- Sophisticated overall concept for future expansion