ROTHBAUM
CONSULTING ENGINEERS

V-ZUG

Modern logistics concept for the vertical factory of V-ZUG AG

Efficient and transparent control of logistics processes as part of the transformation to the vertical factory

An overview

The transformation to a vertical factory is changing the requirements and framework conditions for a production environment and the associated intralogistics processes. Through specifically developed solutions in the areas of inventory management, material flows and material control and the continuous monitoring of targeted KPIs, the basis was created to control and operate the vertical factory in a future-proof manner in relation to intralogistics processes.

V-Zug AG

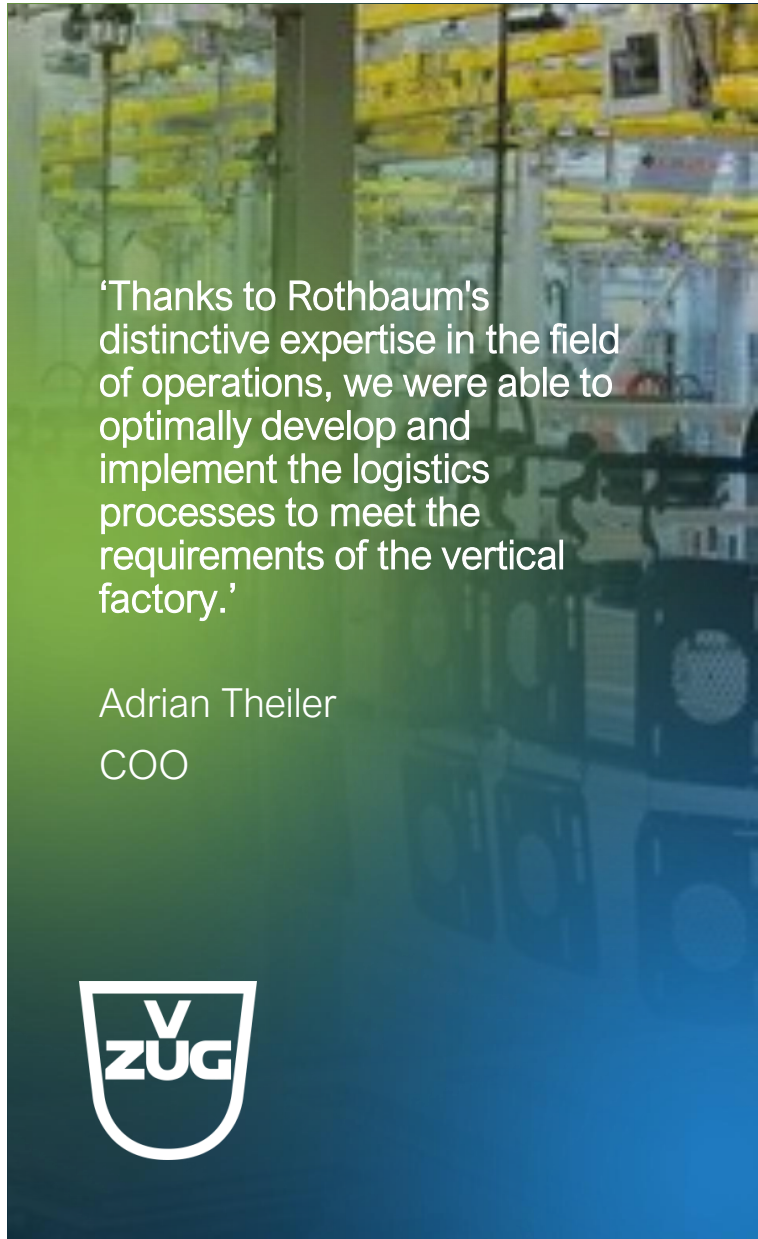
- V-ZUG AG is a household appliance manufacturer based in Zug (CH).
- In 2022, the company generated sales of CHF 636 million and employed around 2,200 people.
- A comprehensive transformation is taking place at the headquarters in Zug with the aim of creating a vertical factory.

Services

- Development of conceptual approaches for determining stock quantities at workstations in assembly.
- Customised target processes for material control within the vertical factory.
- Identification of optimisation potential in the use of IT systems and organisational adjustments.

Results

- Standardised processes in material provisioning with efficient use of resources
- Determination of ideal stock levels at workstations and assembly-related supermarkets
- Increased transparency of material flows and stock levels in the leading system SAP EWM
- A KPI system using the functionalities of the IT systems used



Project description

The production and assembly of household appliances in the kitchen and washroom segments takes place on 4 levels. The production workstations vary from completely manual to highly automated. The entire value creation process is strongly orientated towards the needs of the customer, which leads to a high level of complexity in the production processes. Production is highly flexible so that any product variant can be manufactured at any time, even in small batch sizes. Combined with a high number of variants in the product portfolio, this places high demands on intralogistics processes and the management of material stocks. Inventories and material flows must be controlled in such a way that an efficient production process is possible at all times.

Procedure

The necessary database was first created in close co-operation with the specialist departments. The specific logistical concepts were developed on the basis of the data. System settings, layout adjustments and support in setting up the warehouse technology were necessary to implement the concepts.

Results

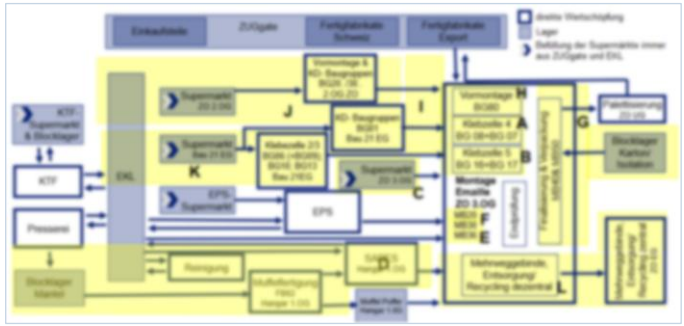
Thanks to the smooth, intensive collaboration between Rothbaum and V-ZUG, it was possible to develop a future-proof system for intralogistics. The new intralogistics system enables V-ZUG to implement efficient processes right from the start of the vertical factory. In addition, adaptations can be made to individual articles in the system thanks to the consistent documentation in the system's derivation. Through targeted monitoring of KPIs, V-ZUG is able to continuously check its own system for efficiency and weak points. This ensures a continuous improvement process that enables V-ZUG to further perfect intralogistics processes in the future.

‘Rothbaum's structured approach and results-orientation were particularly helpful in the project work, which quickly led to results with added value.’

Isabelle Elmiger

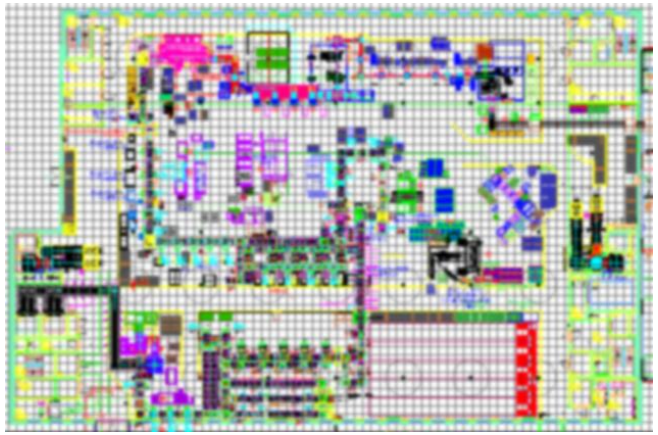
Head of SCM-Outbound / Log. Comp. Center

Exemplary insights



Complex production processes and intralogistic procedures can be simplified in schematic representations. A production stage model was developed in the project for this purpose, which made it possible to define subject areas to be considered in the course of the project.

A reliable database was the key to success in developing the concepts in the individual production areas quickly and efficiently.
The PowerBI tool developed also enables VZUG to create a fast database for other production segments for future transformations.



The concepts developed must be precisely tailored to the future layout. After dimensioning for logistical areas, the detailed layout is usually adapted to take account of the system layout, optimised routes and aspects such as safety and fire protection.

A well thought-out basic scheme and a reliable data basis enable the concepts for each production area to be processed quickly

The consistent documentation of the procedure enables future adaptations to be carried out quickly and carefully in the system, as framework conditions and requirements can change quickly in complex environments.

I look forward to your questions!

Steffen Winterhoff

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