



**Automated intralogistics,
Solupharm Pharmazeutische
Erzeugnisse GmbH, Melsungen.
Automated intralogistics solution
in accordance with GMP guidelines.**

JUNGHEINRICH

Project:

Solupharm Pharmazeutische Erzeugnisse GmbH,
Melsungen, Germany

Industry:

Pharmaceuticals

Task:

Automated intralogistics solution in accordance with
GMP guidelines

Services:

- Automated Guided Vehicles ETX 515a
- Jungheinrich Warehouse Control System (WCS)
- Area access control
- Racking
- Conveyor technology

Most important results:

- High level of flexibility
- Process reliability of the solution
- Elimination of mix-ups and incorrect loading
- Efficient use of employees

**Leading contract manufacturer for parenteral
preparations**

Solupharm Pharmazeutische Erzeugnisse GmbH is a mid-sized family business and a leading contract manufacturer for parenteral preparations. The portfolio of Solupharm includes water preparations for injection purposes, electrolytic solutions, vitamin preparations, pain relievers, herbal and homeopathic preparations as well as sterile anaesthetics.

Individual and process support

Solupharm fills glass ampoules and glass vials with sterile medicinal products. Great emphasis is placed on individual and process-related support for international customers. This ensures that customer orders can be processed quickly and flexibly without bureaucratic complications and in compliance with GMP.

Flexible logistics system solution

To increase its storage capacity and to ensure compliance with the GMP directive in the future, Solupharm invested in a narrow-aisle warehouse with automated high-rack stackers. The new building can accommodate a total of 1,680 pallet space positions for semi-finished and finished goods.

The requirement

Intralogistics in accordance with GMP guidelines

Solupharm specialises in the production of sterile injection and infusion preparations. For this reason, the requirements of Good Manufacturing Practice (GMP) had to be taken into account when the automated warehouse was constructed. In addition to this requirement, Solupharm expressed a desire to relieve the employees of operational tasks in the future in order to utilise the employees more effectively for administrative tasks.

The solution

Automated high-rack stackers in a narrow-aisle warehouse

As a general contractor, Jungheinrich planned and implemented a narrow-aisle warehouse for Solupharm with two automated high-rack stackers. The ETXa high-rack stackers are designed for 25 double cycles per hour. They process their orders in two aisles, each 35 metres long. The ETXa models stack and retrieve goods up to a maximum depositing height of six metres. Their energy is supplied by open bus bars arranged on the racks. This ensures availability 24 hours a day, seven days a week, with no breaks for battery charging or battery exchange. As a result, the company is able to perform quality assurance in accordance with GMP requirements without having to reinforce the team.

The Jungheinrich Warehouse Control System (WCS) offers process reliability and increased efficiency. The possibility of mix-ups and costly incorrect loading of Solupharm's expensive goods will also be a thing of the past. The Solupharm ERP system posts movements of goods and initiates the intralogistics processes. Then the ERP system reports the transport orders for the pallets to the WCS. The WCS assigns warehouse orders to the automated high-rack stackers via WLAN. Automation ensures permanent availability of the system. This makes it possible to work from Monday morning until Saturday noon without

interruption and without having to schedule additional employees for on-call night duty.

One special feature of the total solution designed by Jungheinrich specifically for the customer Solupharm is the installation of an emergency access to the narrow-aisle warehouse. If an unexpected malfunction occurs or maintenance is required, the warehouse can still be operated using manual devices.

Customer statement

Custom-designed total solution offers potential for expansion

"Jungheinrich has also proven to be a very flexible collaborative partner, particularly when the question arose at a very advanced stage of implementing the project whether we should set up a refrigerated warehouse in one of the aisles. Jungheinrich ultimately designed the relevant aisle so that a cold store could be retrofitted. This flexibility confirmed the positive experiences we already had with Jungheinrich even before investing in the narrow-aisle warehouse with trucks. Despite the challenge, everything went optimally. If higher throughput levels are needed in the future, we are prepared. The warehouse is designed so that it can easily be expanded to four high-rack stackers," explains Dr Tobias Schönberg.



Dr Tobias Schönberg, Manager Production Warehouse, Solupharm Pharmazeutische Erzeugnisse GmbH, Melsungen.

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The logo for Jungheinrich, featuring a stylized red arrow pointing upwards and to the right, followed by the word "JUNGHEINRICH" in a bold, black, sans-serif font.