



CASE STUDY | PHARMA, MEDICINE | PERFORMANCE

FRESENIUS MEDICAL CARE

GERMANY

INNOVATIVE FULL SERVICE CONCEPT

RELIABLE AVAILABILITY DURING CONTINUOUS OPERATION

Fresenius Medical Care – the world’s leading provider of products and services for people with chronic kidney failure – not only needs a solution for the dynamically increasing flow of goods, but also one that takes into account growth over the next 10 to 15 years.

That’s why an expansion of the two existing distribution centers is not sufficient. Instead, a new high-bay warehouse is needed.

For the first time in Germany, a building and the associated technology is being leased by an investor to Fresenius in Biebesheim, delivering a guaranteed system availability of 98% over 15 years.

98% availability – 15 years guaranteed

Exceptional levels of reliability are required for the storage and order picking of medical equipment and materials. For this reason, special attention was paid to system availability when the project was put out to tender.

We convinced the customer to commission us as a full-service intralogistics provider because we are the only company that guarantees 98% system availability over the entire 15-year lease period.

The LTW stacker cranes have both a robust, rigid construction and impressive weight optimization. Every ton of steel saved saves energy later with every pallet movement. We were impressed by the manufacturing quality to ropeway standard within the Doppelmayr Group.

Rainer Reichelt, Logistics Planner, Fresenius

The implementation

It is not only the quality of our materials that plays a major role, but also a competent service team. That’s why, in close coordination with Fresenius, we are setting up a dedicated team that will look after the system around the clock. All five



**FRESENIUS
MEDICAL CARE**

Fresenius Medical Care Deutschland GmbH

Eduard-Fresenius-Straße 1
64584 Biebesheim, Deutschland
freseniusmedicalcare.com

Production: Products and services for people with kidney diseases

Dialysis clinics: 4,135 (worldwide)

Production sites: 42

Employees: 125,000



Universally designed conveyor system

LTW employees have been getting acquainted with every aspect of the system since the installation phase. At least two technicians continuously monitor operation and use the time for preventive maintenance work. This allows maintenance to be cut in half to once a year.

We put our trust in LTW, who were very clear in their negotiations, and accompanied us on this journey without thousands of ifs and buts.

Rainer Reichelt, Logistics Planner, Fresenius

Planning the intralogistics center

It is not only the specified system availability that presented us with new challenges. Our customer does not want to expand their own distribution centers in the area, but has opted for a completely new model instead. The idea of a thoroughly planned, automated high-bay warehouse came into being, with generous reserves for further growth as Fresenius plans ahead for the next 10 to 15 years. And the special thing about the project is that the warehouse is being commissioned by the investor Alpha Industrial, a specialist in logistics real estate, which intends to lease the warehouse to Fresenius. The technology that goes with it will also be included. For us, this means that we have to design the intralogistics so that they are not only perfectly tailored to Fresenius, but also remain attractive to new users after the lease period of 15 years.

Universal solution

A high-bay warehouse, conveyor system, and software will be created to meet general purposes beyond the Fresenius requirements – from the layout to the details. The goal here



Ten stacker cranes serve the high-bay warehouse



is to design the layout so that a new tenant has everything they need at their disposal as far as possible. That's why, for example, the chosen height of the pallet spaces is generous, the choice between double- and triple-depth storage has been integrated, and much more besides. The advantage of sustainability clearly outweighs the additional costs for the investor. Fresenius, in turn, benefits by paying a much lower monthly rent.

The expansion

It's clear to see that the new distribution center successfully merges the two previous central warehouses with different target regions and order structures. After five years of reliable operation, the high-bay warehouse is being expanded with an extra three rack aisles. Ten aisle-bound stacker cranes now handle approximately 6,400 pallet movements per day in two-shift operation. A possible third shift offers reserve capacity.

More Infos at:

[LTW.AT/en/references/detail/fresenius-medical-care](https://www.ltw.at/en/references/detail/fresenius-medical-care)

PROJECT OUTLINE



HIGH-BAY WAREHOUSE (HBW)

- Galvanized steel rack
- Rack supported storage system
- L x W x H: 154 x 74 x 38 m
- 10 rack lanes
- Double deep 3-/2 storage
- Approx. 78,000 pallet spaces
- Maximum payload: 1,200 kg
- Air conditioning: + 15 °C to + 25 °C

STACKER CRANES

- 10 aisle-bound stacker cranes
- Driving speed: 240 m/min
- Driving acceleration: 0.4 m/s²
- Hoisting speed: 70 m/min
- Hoisting acceleration: 0.6 m/s²
- Load handling device: telescopic fork double deep

CONVEYOR SYSTEM

On 2 levels with storage and retrieval points in hall 1 and hall 2

- 2 picking zones
- 2 labellers (vertically adjustable)
- 1 pallet wrapping machine
- 3 transfer carriages
- 4 vertical conveyors
- Automatic identification point including inhouse pallet handling



AUTOMATED SMALL PARTS STORAGE

- L x W x H: 48 x 8 x 6 m
- 2 rack lanes
- Double deep storage
- Approx. 8,700 spaces for plastic boxes (400 x 600 x 220)
- Maximum payload: 50 kg

STACKER CRANES

- 2 aisle-bound stacker cranes
- Driving speed: 300 m/min
- Driving acceleration: 3 m/s²
- Hoisting speed: 180 m/min
- Hoisting acceleration: 3 m/s²
- Load handling device: KTC with double-sided output system

SOFTWARE

- Warehouse control unit for high-bay warehouse and automated small parts storage
- Certified SAP interface for customized storage management
- Availability indication
- Emergency operation for goods retrieval to maintain delivery capacity