Case Study

Controlled Environment
Case at a glance

How we took our customer from task to solution
Merck is a leading science and technology company in the pharmaceutical and chemical industry. Merck KGaA requested help with their newly constructed research center in Germany. They wanted to access cool and deep-freeze storage from a room temperature area. Kardex customized a controlled-environment storage solution with a hatch unit in front of an access opening.

Customer and task
Our customer Merck is committed to changing the world through science and technology. Employing 50,000 people in 66 countries, Merck develops and supplies specialized products in the healthcare field.

The newly constructed research building required three zones to supply, prepare, manage, and store pharmaceutical research substances under special storage conditions. Laboratory staff required access to the refrigerated warehouse from a room temperature area, and a redundancy system was needed to secure the controlled storage conditions.

Solution
Kardex implemented a customized solution including three standard Vertical Lift Modules Kardex Shuttle XP modified for chilled conditions. Metal sheets on the Kardex Shuttle trays create subdivisions. Laser pointers and position indicators show an item’s exact position and identify the correct product to pick. A refrigeration unit cools the Kardex Shuttle and as a back-up, in the event of a fault, a redundant cooling unit with redundant sensors takes over. The air is dehumidified by a drying device to prevent humidity from condensing and icing in the Kardex Shuttle.

It is now easier to access the stored goods and the Kardex Shuttle are clad in insulation panels. This allows operators to access the air-conditioned units directly from a room temperature laboratory.

Customized solutions

Saved 66% floor space
Improved ergonomics
Created cool and deep-freeze areas
Scope of delivery

3 Kardex Shuttle with thermally decoupled automatic tray extension
W: 3,650 mm | D: 813 mm | H: 7,950 mm

Kardex Power Pick System warehouse management software laser pointer

3 cooling systems (including redundancy system) drying technology

kardex.com