

Case Study

A Tailor-Made Twin





Keeping cool

The challenge

The storage and delivery capacity of the Eisbär Eis company had reached its limit. In anticipation of further growth, a decision was made to double the capacity. At the core of the plant, the operating temperature is -28°C . The two MSingle storage and retrieval machines, which have been installed in the two newly constructed aisles, are unaffected by the cold. The thirty-metre high machines were fitted ex works with specially heated and insulated control box cabins to provide double protection for the controls and electronics against the cold.

The solution

The M Singles are fitted with telescopic forks for double-deep storage and retrieval of the pallets, the load capacity of each machine is 7.5 kN. The maximum travel speed is 180 m/min, the maximum lifting speed is 50 m/min. Without transfers, throughput of 27 double cycles or 49 pallet storage operations can be achieved per hour. The frequency-controlled motors contribute to achieving a high level of efficiency.

In goods issue, 4 additional spaces have been configured. The shipping area has been extended with an additional loading dock, and the staging area has 2 additional transfer carriages.

This measure also facilitated the set-up of an "express route", along which pallets can be transported directly to a gate without the need for a transfer carriage. All work was carried out during work-free hours at weekends, so that ongoing operations were not disrupted.

At a glance

Doubled deep-frozen warehouse space

In 2011, Eisbär Eis constructed a second high-bay deep-freeze warehouse. The addition of 7,000 new pallet spaces doubled the existing capacity to a total of 14,000 pallets. The twin of the existing 32-metre high refrigerated warehouse was completed within only eight months. The investment volume for the expansion came to approximately 4.5 million euros.

7,000 new
pallet spaces

49 storage
operations
per hour

Travel speed
180 m/min



Scope of delivery



2 new aisles with storage and retrieval machines for double-deep storage and retrieval, and heated and insulated control box cabins



1 additional loading dock for shipping and 2 additional transfer carriages, which means that the trip distance has been halved



Set-up of an "express route" for pallet transport to the gate without the need for a transfer carriage