

PowerCube makes its debut in Switzerland.

Schönenberger has implemented the world's first Jungheinrich PowerCube at its logistics centre in Mellingen. The aim of the wholesaler specialising in electrics, décor and lighting was to enhance warehouse capacity and competitiveness. The warehouse is an impressive 11 metres high with 18,000 storage locations, eight shuttles and a capability of up to 150 picks per hour. Combined with the Jungheinrich WMS to control goods movements, and professional service and support for prompt resolution of issues, the automated compact container warehouse forms the foundation for modern logistics. This allows for flexibility to adapt along with the customer and room for ambitious future visions.

SCALABLE COMPACT CONTAINER WAREHOUSE.

Automated, ultra compact and scalable – with the Jungheinrich PowerCube, Schönenberger has identified the ideal substitute for its previously manual order picking system. The long walking distances and high error rates were costing the customer a lot of time, which can now be used more efficiently thanks to the highly innovative PowerCube. On a footprint of just 400 m², Jungheinrich implemented a powerful and sustainable logistics system capable of effortessly handling up to 150 storage or retrieval operations per hour. By adding up to 20 shuttles, this performance can be enhanced even further if necessary.

EFFICIENCY AT A NEW LEVEL.

With a system height of up to 12 metres, the Jungheinrich PowerCube is the tallest compact container warehouse in its class. Containers are stacked on 33 storage levels and transported to their destinations by energy-efficient PowerCube shuttles equipped with high-performance lithium-ion batteries at a speed of 4 m/s. Thanks to the option for booster charging at the workstations, the shuttles can operate 24 hours a day without downtime. "With the same number of staff, the PowerCube allows me to pick 30% more positions per day," enthuses Enzo Guzzo, Head of Supply Chain at Schönenberger.

CUSTOM IN-HOUSE LOGISTICS.

To comply with stringent fire protection requirements, the PowerCube was implemented as an oxygen-reduced structure

with sensors installed for smoke detection. These sensors trigger an alarm before any highly flammable component ignites. During system commissioning, the customer was trained to handle any potential malfunctions independently. "If a problem occurs, I can resolve it from my office or even from home," reports Enzo Guzzo enthusiastically. Shuttles can also be serviced individually outside the system, allowing the remaining shuttles to continue functioning and enhancing productivity.

30 % more storage space, 100 % more performance.

SUCCESSFUL PILOT PROJECT.

By selecting the world's first PowerCube, Schönenberger becomes a trailblazer in the domain of ultra-compact container storage. The comprehensive logistics solution aids the customer in enhancing goods throughput while reducing error rates. It renders additional external warehouses unnecessary due to its distinctive space utilisation, and offers substantial development potential for the customer. With the PowerCube, Jungheinrich utilises advanced software to link efficient processes with innovative hardware. Overall, building the first PowerCube was an invaluable learning experience for everyone involved in the project. Plus, Enzo Guzzo tells us, genuine friendships were formed along the way.

On a floor area of 400 m², the 11-meter-high PowerCube offers 18,000 storage locations.

02 Eight shuttles enable up to 150 storage or retrieval operations per hour.







We are proud to call the first Jungheinrich PowerCube our own.

Enzo Guzzo

Head of Supply Chain at Schönenberger

We speak with Enzo Guzzo,
Head of Supply
Chain at
Schönenberger

Why did you decide to utilise the Jungheinrich PowerCube in your warehouse?

Firstly, because we had reached the capacity limits of the warehouse that we were using. The PowerCube offers us a 30 % increase in capacity within the same storage space, which is a substantial benefit for us. Another critical factor in our decision was the future readiness of the PowerCube. We can seamlessly integrate up to 20 shuttles into the system, which could nearly triple our current performance. This will enable us to support our projected growth in the coming years. Since the PowerCube recouped its costs after just four years, this investment was undoubtedly the right decision for us.

What improvements have you observed in your warehouse since the implementation of the PowerCube?

In summary: increased speed, increased reliability and increased cost-effectiveness. By converting our manual order-picking system to the automated compact container warehouse, time-consuming walking routes have been entirely eliminated, significantly improving our logistics processes. Plus, scanning the items significantly reduces our error rate. The PowerCube covers an area of approximately $25 \times 16 \times 11$ metres (L x W x H), fully utilising the available building height with its 3D matrix construction. As a result, we no longer require a costly external warehouse and can manage our processes centrally in a single warehouse.

Are you happy with how the project went and would you recommend collaboration with Jungheinrich?

The collaboration with Jungheinrich was ideal for us. From planning through to implementation and service, Jungheinrich provided us with a complete carefree package. Although the project is now complete, we continue to communicate to explore further ways to optimise the system. We seek to maximise the unique features of the PowerCube and develop the version that suits us best. From the outset, we were aware of the immense advantage of having a strong partner like Jungheinrich by our side. This feeling was reinforced during project implementation. For future projects, Jungheinrich would be the only choice for us.



Customer:

Sector:

Company size:

Location:

Warehouse size:

M. Schönenberger AG

Electric and lighting technology

32 employees

Mellingen, Canton of Aargau, Switzerland

400 m² of floor space

CHALLENGE

Planning and realisation of the world's first PowerCube in a limited space, in compliance with strict fire protection requirements. Increasing warehouse capacity and productivity and dispensing with existing external warehouses.

JUNGHEINRICH SOLUTION

Jungheinrich PowerCube with 18,000 storage locations and eight energy-efficient shuttles, Jungheinrich WMS to control material flow and a service contract for professional maintenance and quick assistance in the event of a malfunction.

RESULTS

Successful implementation of the Jungheinrich PowerCube according to individual customer specifications, optimised space utilisation, increased productivity and rapid execution in a construction period of only four months.

IMPRESSIONS

Each shuttle can carry two containers at once, with a load capacity of up to 50 kg per container.



For increased productivity, the shuttles can be serviced individually outside the system while the remaining shuttles continue operating.





By integrating up to 20 shuttles, performance can be nearly tripled if needed.

