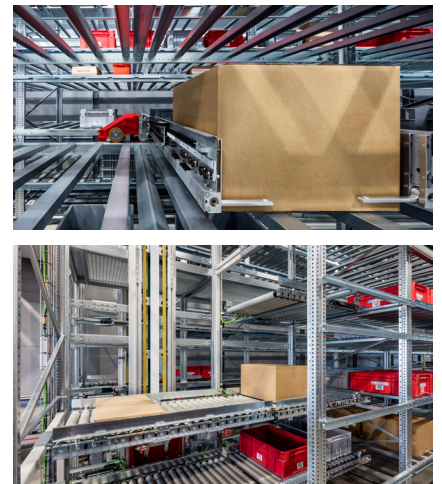


Fast & reliable – efficient storage, order and picking consolidation



CycloneCarrier for dynamic storage and retrieval of light goods

Dynamic, reliable and efficient; these are the attributes that make Swisslog's CycloneCarrier a best-in-class shuttle system. Depending on the configuration CycloneCarrier offers an hourly throughput of up to 2,000 infeeds and outfeeds per aisle. It can handle a wide variety of cartons, trays and totes. As part of a complete solution for light-goods handling, CycloneCarrier seamlessly integrates into efficient logistics processes; for example, as a feeding engine for goods-to-person picking or an intelligently designed buffer system for order consolidation.

Designed for the most demanding requirements

CycloneCarrier was designed for industries where high throughput and excellent availability are essential. It is particularly well-suited for the requirements of the e-commerce, pharmaceutical and fresh food industry.

Benefits

Fast

The highly dynamic lifts and shuttle vehicles deliver short order processing times.

Reliable

Safe loading ensures reliable handling and reduces downtime.

Versatile

The system offers a variety of configuration options in terms of different dimensions and temperature range.

Integrated

The integrated software and fine sequencing using separate modules allow for seamless and efficient integration into the overall system providing a high ROI.

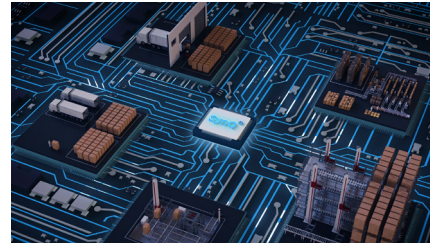
Design



Components



System & controls



Storage & transport

High storage density and excellent dynamics are the two key characteristics of CycloneCarrier. This innovative shuttle storage and retrieval system offers double to multi-deep storage of totes, trays and cartons. CycloneCarrier combines high performance with maximum availability and is able to transport even critical goods safely and securely.

High reliability

CycloneCarrier ensures reliable operation with minimized downtimes. To perform service and maintenance, it is possible to shut down only the affected levels. The shuttles are easy to reach through built-in maintenance aisles and offer a plug&play design for quick replacement.

Vehicle

Each storage level is equipped with one shuttle vehicle. Vehicles are available in two versions:

- Fixed width for the load handling device
- Flexible and adjustable load handling device

The load handling devices ensure reliable control. The clearance for the "fingers", which pull or push the cartons or totes, is checked prior to loading. If it is blocked, adjustments are made so the carton or tote can be loaded safely.

Lift

Each aisle has one lift for storage and retrieval. A double-deck version with two conveyors is available for applications that require maximum performance.

InRack conveyor

Transfer conveyors act as buffers between the lifts and shuttle vehicles. They are installed on each level of the customizable rack.

Software Warehouse Management system

CycloneCarrier comes with an application developed Swisslog software. Efficient storage and retrieval strategies trigger transport tasks for all movement of goods at the optimum time. In addition, the software application offers a number of general features including user management, bin location management, and interfaces to integrate CycloneCarrier with complementing subsystems. Visualization and statistics functions complete the application.

Control

The control software of the CycloneCarrier subsystem coordinates the movement of lifts, conveyors, and shuttle vehicles. CycloneBox ensures that transport tasks are executed properly and monitors processes to guarantee optimized interaction between subsystems.

Facts

Load weight per transport unit	up to 35 kg, standard application up to 50 kg, with reduced dynamics
Transport unit dimensions	min. 200 x 200 x 50 mm max. 800 x 600 x 600 mm
Storage density	up to triple-deep short-side-leading storage (Depending on the load carrier, up to 2,070 mm)
CycloneCarrier vehicle speed	up to 4.0 m/s
Lift speed	up to 4.0 m/s
Throughput of system	up to 2,000 in- and outfeeds per hour per aisle
Lift height	max. 25 m
Temperature range	from 1 °C to 40 °C (33.8 °F to 104 °F)

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