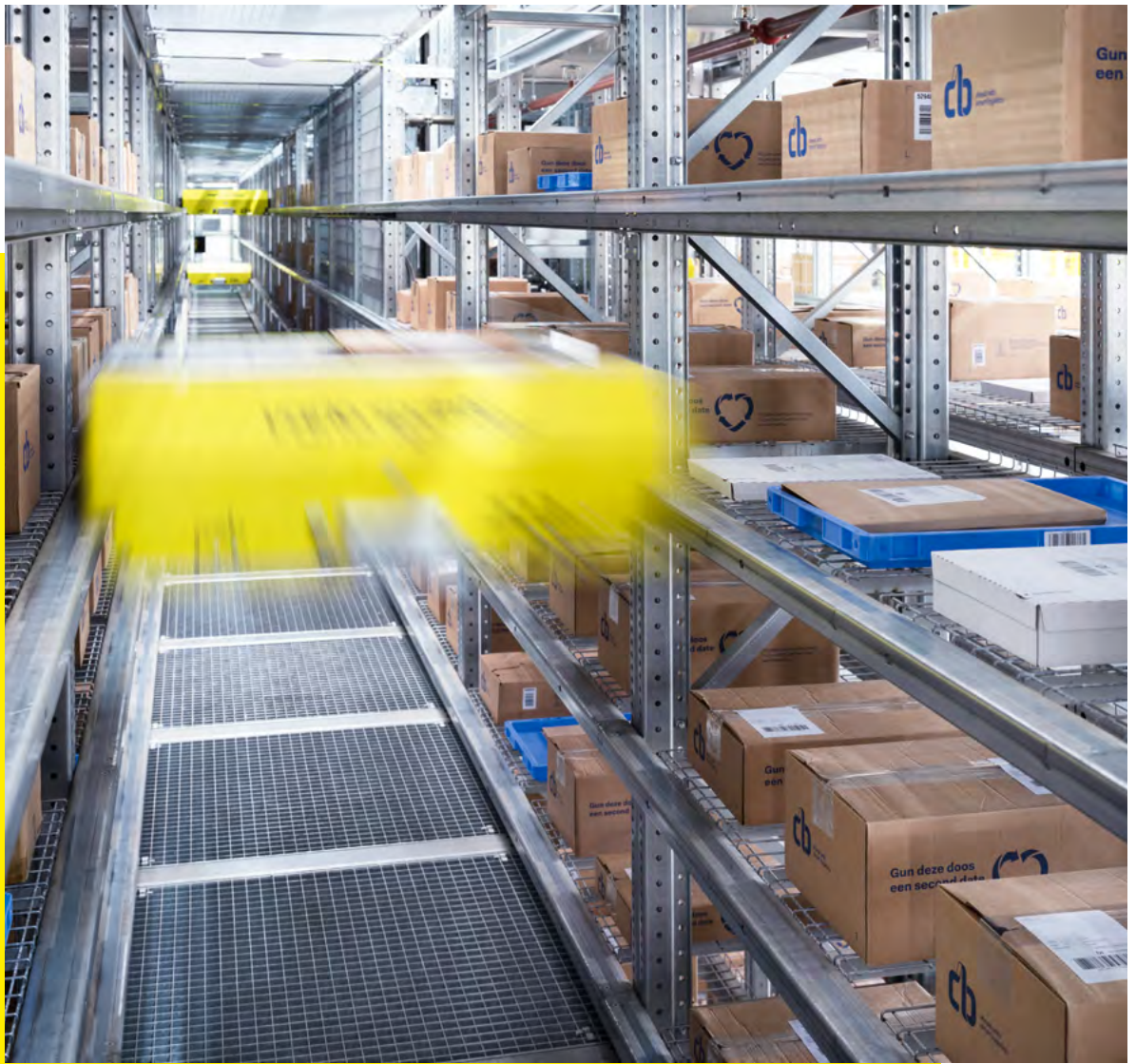
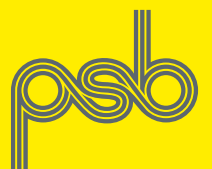




BEST PRACTICE

CB

—> Single carton buffer for
Omnichannel shipping



CREATING YOUR
INTRALOGISTICS



SHIPPING BUFFER

SHUTTLE WAREHOUSE WITH PALLETIZING WORKSTATIONS

CB is the central logistics service provider for books in the Netherlands and Belgium, acting as the link between publishers and bookstores throughout the Dutch speaking region. With approximately 730 employees, the company generates annual revenue of 110 million Euro and delivers an exceptionally high level of service, achieving an on-time delivery rate of 99 %. CB's portfolio comprises more than 120,000 titles and continues to grow steadily, driven in part by the increasing integration of foreign-language books.

To efficiently manage the shipment of book deliveries to more than 2,500 B2B customers, CB selected a shipping buffer solution with integrated palletizing functions from psb intralogistics. The core of the system is an automated shuttle warehouse that serves as a central shipping buffer. Here, orders from various packing areas are consolidated and sequenced before being prepared in the directly connected palletizing area according to the requirements of different customers and shipping service providers.

The shuttle buffer consists of four aisles, each with eight storage levels. Within a footprint of approximately 30 × 11 m, the system provides more than 4,000 storage locations for various carton sizes. In total 32 shuttles handle the dynamic storage and retrieval of cartons and trays in a single-deep storage configuration. Vertical transport is provided by four integrated tote lifts (one per aisle), achieving a combined throughput of up to 1,600 dual cycles per hour.

The shipping cartons are palletized at directly connected palletizing workstations designed for high throughput rates and ergonomic operation. A total of eight palletizing workstations are arranged on an elevated platform: shipping cartons are supplied from the warehouse via an overhead conveyor system, while empty pallets are provided, and fully loaded pallets are removed, via a conveyor system located below. This separation of material flows ensures a clearly structured process and prevents disruptions to operational workflows.

**INFORMATION +
VIDEO ON OUR
WEBSITE**
**CUSTOMER**

CB
Culemborg | NL

SYSTEM

Shuttle warehouse with 4,000 storage locations: 3 storage aisles with 32 level-bound shuttles, 8 double palletizing workstations, 3 NIO and special loading stations, pallet and parcel conveyor system

CONTACT

psb intralogistics GmbH
Blocksbergstraße 145
66955 Pirmasens
Germany
+49 6331 717 0
info@psb-gmbh.de



←
Pallet infeed and
discharge take place
from below



↑ Height-adjustable workstations ensure an ergonomic loading height at all times

A key feature of the workstations is the ergonomic design of the palletizing process: scissor lift tables allow the pallet height to be continuously adjusted according to the current loading level. This ensures that even heavy book cartons remain at an optimal picking height throughout the process, significantly reducing physical strain on employees while simultaneously increasing operational efficiency.

The palletizing workstations are complemented by a multifunctional workstation for special processes such as error handling and relabeling, as well as additional stations for loading dollies and roll containers. An automated pallet supply system, including a pallet

destacker, ensures the continuous replenishment of empty pallets at the workstations. Finished pallets are then conveyed to a stretch wrapper and prepared for shipment.

CREATING YOUR
INTRALOGISTICS.

—→ **psb intralogistics GmbH** | 66955 Pirmasens | psb-gmbh.de