

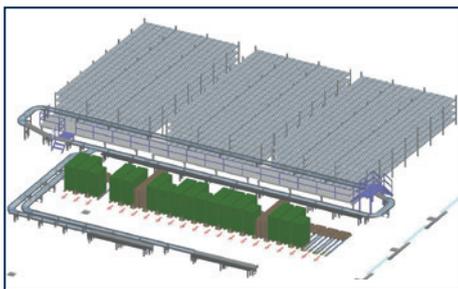


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Sorting and commissioning of empties boxes. Safe, robust conveyor system with data acquisition.

KÖHL Maschinenbau AG realised a robust transport system that enables the sorting and commissioning of empties boxes. The loop section is designed to simplify the sorting of crates. The task of empties boxes in the loop conveyor section is done manually via two solidly built shooting tables.

The system is designed as a complete support frame system that allows handling of up to 37,000 empties boxes in 2-shift operation. Divided into sorting areas for A, B and C articles, the empties boxes can be removed from the conveyor belt and stacked sorted on pallets or placed in the flow rack. Thus, a turnover of 200 different types of items is possible, which is expandable as needed.



ADVANTAGES OF THE SYSTEM

- Easy handling
- Efficient sorting process
- High handling capacity
- Flexible division into different sorting areas
- Robust construction
- Circulating loop
- Short ways for employees
- Optimized space requirement
- Optimal working conditions
- Seasonal adjustment

Transport system in loop form

The distribution of the delivered empties takes place via a loop conveyor line with two deposit positions, which consist of 5-meter-long, massively built tables. The shortest feeding distance reaches a maximum capacity of approx. 40 crates.

Furthermore, the loop conveyor line is characterized by a 90° curve and an incline that transports the B / C articles to the sorting area installed on a stage.

A-articles sorting system

There are 22 pallet spaces on floor roller conveyors available for A-articles commissioning. For the safety of the employees, the roller rails are equipped with side guides and deactivatable push-back blocking. In addition, the roller conveyors in the removal area are protected by massive guides.

A continuous "buffer table" which simplifies the removal of the same A-articles from the circulating loop contributes to higher efficiency.

B/C-articles sorting system

The sorting area for the B/C articles built on a walkway platform consists of 3 shelves with 3 fields each, 5 channels and 4 levels per field. In total, this results in 180 sorting shafts equipped with galvanized steel roller conveyors.

To get a better overview of the assortment, the empty crates are stopped at the first workstation to reduce time searching for the correct shafts.

Empties sorting with data acquisition

The system has two counting points which identify the different characteristic values. This includes the number of abandoned boxes as well as the record of the boxes, which go through the loop conveyor line several times. The data is provided via a visualization.



A-articles sorting system on floor roller conveyors (22 pallet spaces)



B/C-articles conveyor line to the platform of the flow rack with 180 sorting shafts