

LS-4000CB CROSS-BELT SORTER

THE BACKBONE OF PRODUCTION AND WAREHOUSING LOGISTICS

The LS-4000CB's high capacity and ability to handle a wide range of high-friction surfaces increase operational throughput without the need for additional floor space.

The system is designed to transport and sort items that present difficulties during traditional sortation, such as tires with high-friction surfaces. The gentle belt sorting allows for the horizontal discharge of the tires to ensure precise position and orientation throughout the entire sortation process.

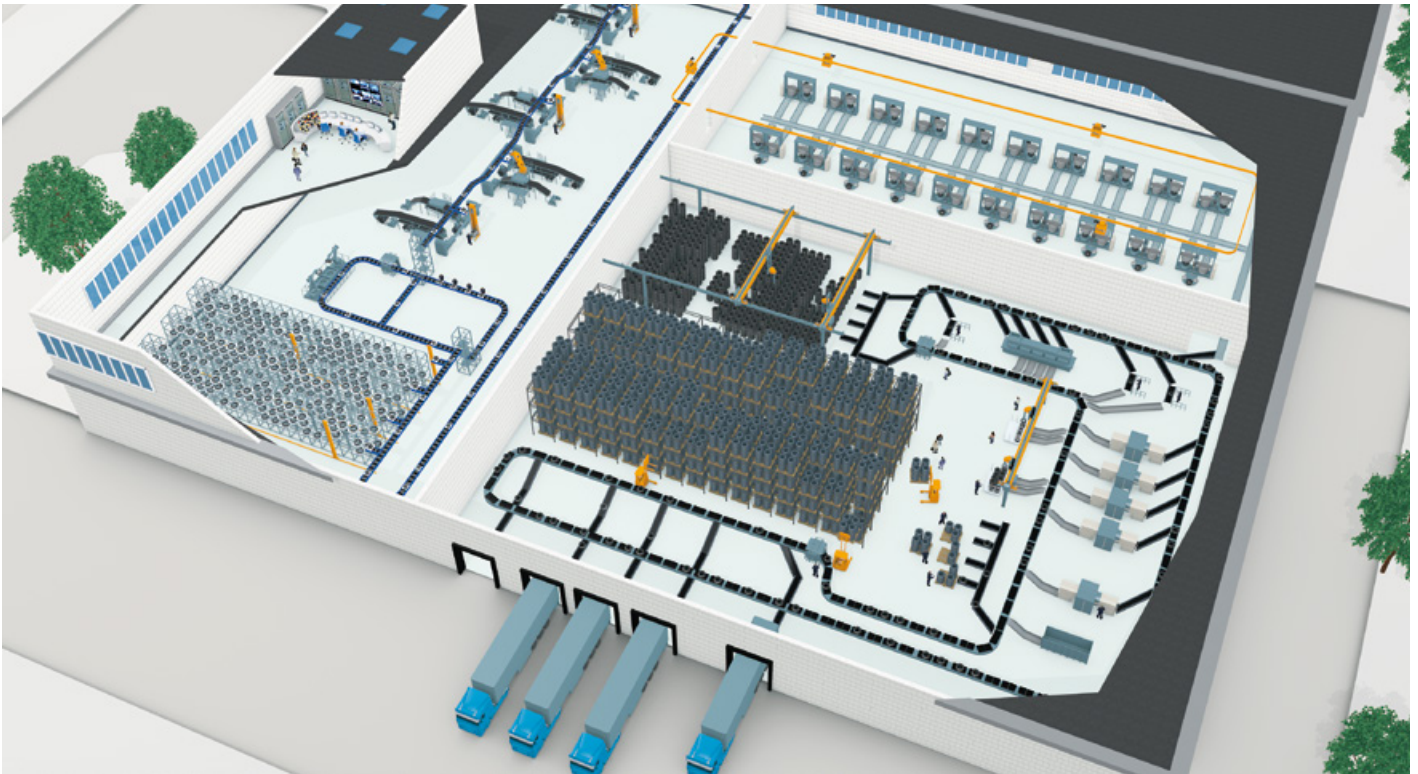
FEATURES

- › High capacity sortation of high-friction items
- › Modular platform for flexible and extendable layout
- › State-of-the-art magnetic drive system
- › Optimised induction system

BENEFITS

- › Precise positioning and tracking throughout the entire sortation process
- › Optimised integration into an existing facility and efficient use of available space
- › Power-saving efficiency with Linear Synchronous Motor (LSM)
- › Low product life-cycle costs (PLCC).

THE INNOVATIVE USE OF A LINEAR SYNCHRONOUS MOTOR



In material handling operations there is no doubt that a fast and efficient sorting system is an absolute necessity and contributes greatly to smooth running of your production and warehouse logistics. Now with the LS-4000CB you can combine speed and efficiency in operations with low power consumption and reliability – which translate directly into lower running costs.

HIGH LAYOUT FLEXIBILITY

Another innovation introduced by this generation of sorters is a -major improvement in the efficient use of available space. The LS-4000 sorters are based on a common installation and technology platform that achieves high levels of system capacity and throughput, even in a space-constrained footprint.

The compact footprint and modular design of the sorters optimise their integration into an existing facility. This space-saving design provides valuable extra room above the sorter and on the floor.

The system features a frame incline of up to 10 degrees and track level changes up to seven metres.

For future handling requirements, the system can be expanded to a higher capacity by adding more induction units and additional chute groups.

All sorters from the LS-4000 series are constructed using the same optimised technology platform to ensure fast, trouble-free installation and commissioning, as well as maximising reliability and availability. The versatile, modular design is based on standardised units, which integrate mechanical and electrical components, as well as low-level and high-level IT and controls that are fully tested and certified in-house prior to installation.

TRACKING AND BUFFERING

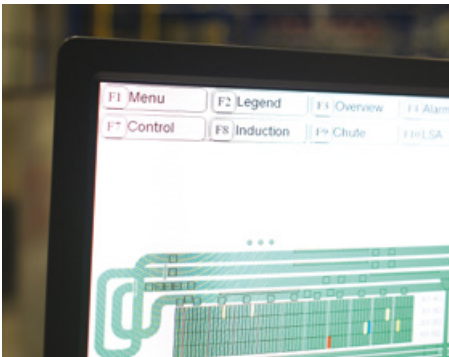
When inducted to the sorter, each tire's identity is digitally paired with the individual sorter carrier id to provide 100% tracking and traceability of each tire. This feature significantly reduces

the need for re-identification by manual encoding or other identification systems.

With tires safely in the sortation loop, the sorter can also be used for dynamic grouping of tires which enables on-demand retrieval by operators who can call-up a batch of tires for further handling, for example automatic palletising, inspection or a value add service.

GREENER AND MORE EFFICIENT

The LS-4000 series of sorters from Crisplant were the first to incorporate a linear synchronous motor (LSM), rather than a conventional linear induction motor (LIM), as their drive system. These LSMs were specifically engineered by BEUMER Group to boost electrical efficiency, as a result of which the LS-4000 sorters use approximately 75 percent less energy than comparable sorters with LIMs.



LOW WEAR AND TEAR

Crisplant's high speed LSMs also set a new low benchmark for product life-cycle costs (PLCC). With no contact between stationary and moving parts, LSMs achieve ultra-low levels of wear-and-tear, resulting in lower maintenance requirements, higher -reliability and a reduction in the need for replacement parts.

Reducing the level of routine maintenance, as well as the frequency of replacing parts, not only reduces labour and materials costs to an absolute minimum, but also provides a higher level of system availability.

A further advantage of LSMs is that they operate at an ultra-low acoustic noise level, creating a safer and more pleasant working environment for airport staff.

IMPROVED SOFTWARE SOLUTIONS

The system controls is BEUMER Group's well-proven high-level and low-level software controls from the BG Software Suite, with improved modularity of the software base as well as a user-friendly interface.

To offer a more efficient software commissioning, testing and checking of software is performed by -computer emulation. This minimises software failures while still providing faster time-to-market for specific customer solutions.

THE LS-4000CB CROSS-BELT SORTER CAN SERVE AS THE BACKBONE OF THE INTERNAL LOGISTIC SYSTEM FOR PRODUCTION:

Trimming

- › Identification systems
- › Uniformity inspection
- › Dynamic balancing
- › X-ray
- › Rework and repair
- › Gantry or lane tire buffers
- › Tire palletisers
- › Value Add Service (VAS)
- › Centrised no-read stations
- › Scrap and quarantine tires

and in warehousing:

- › Inbound flow to warehouse
- › Identification systems
- › Label applications
- › Outbound sorting to docks

SPECIFICATIONS

- › Modular concept based on standard elements.
- › Drive system: Linear Synchronous Motor (LSM).
- › Sorter velocity: up to 3 m/sec (590 ft/min), (9,000 tires/hour point capacity)
- › Adjustable for 450 – 1000 mm tires in same discharge.
- › Noise level: 62 dB(A).
- › Item width, length and weight according to sorter specifications.
- › Maximum frame incline/decline: Up to 10° in both straight and curve sections.
- › Temperature range: 0°C (32°F) to +45°C (113°F); extended range possible with the addition of special heating and/or cooling elements.

