



LS-4000E

TILT-TRAY SORTER FOR AIRPORTS

HIGH CAPACITY, HIGH SPEED TILT-TRAY SORTING SYSTEM

The LS-4000E tilt-tray system's high capacity and ability to handle a wide range of baggage shapes and sizes increases operational throughput without the need for additional floor space. In many airports this extra capacity may be sufficient to cope with forecasts for increased passenger numbers without having to make a major investment in a new terminal building. In projects where a new build is still required, LS-4000E sorters ensure that every cubic metre of space is used to its full potential.

In baggage 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 airport and passenger satisfaction. With the LS-4000E from our Crisplant® product range you can combine speed and efficiency in operations with low

power consumption and mechanical reliability – which translate directly into lower running costs.

FEATURES

- › High capacity sortation
- › Modular platform for flexible layout
- › State-of-the-art drive system
- › Optimised induction system.

BENEFITS

- › Highest possible utilisation of capacity
- › 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).

ENERGY EFFICIENT BAGGAGE HANDLING SYSTEMS



HIGH LAYOUT FLEXIBILITY

Another innovation introduced by this generation of sorters is a major improvement in the efficient use of available space. The LS-4000E 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 optimises their integration into an existing facility. This space-saving design provides valuable extra room above the sorter and on the floor. The modular design, with low section heights and up to six metres between supports, frees valuable space above the system and at floor level, which can be used for sprinkler systems, personnel and vehicle access or for additional conveyors, sorting and storage systems.

This optimises integration into an existing facility and in both new-build and existing systems the sorters increase design versatility by providing full access to multiple floor levels. They feature a frame

incline of up to 10 degrees and track level changes up to seven metres.

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.

GREENER AND MORE EFFICIENT

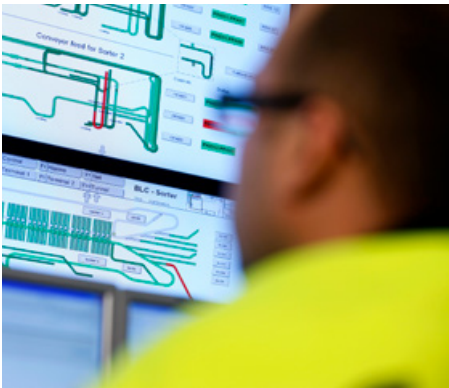
The LS-4000 series of sorters were the first to incorporate a linear synchronous motor (LSM), rather than a conventional linear induction motor (LIM), as their drive system. These LSMs were specifically engineered by BEUMER Group to boost electrical efficiency, as a result of which the LS-4000 sorters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

Sorter velocity is up to 3m/sec with 'banking' around curves – trays tilt through curves to counter centrifugal force and keep the load centred in the tray. The trays are realigned immediately after exiting the curve to keep the speed of the sorting system.

LOW WEAR AND TEAR

BEUMER Group's high speed LSMs also set a new low benchmark for product life-cycle costs (PLCC). With no contact between 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

Evolution of BEUMER Group's well-proven high-level and low-level software controls from the BG Software Suite with improved modularity of software base as well as user-friendly user 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.

CHUTES FOR THE LS-4000E TILT-TRAY SORTER OFFER:

- › Optimal arrangements for every type of baggage make-up procedure
- › Item transfer at high speed
- › Gentle handling
- › Batching
- › Smooth handling to minimise jams and best presentation
- › Ergonomics for efficient end-of-chute operations
- › Efficient layout for smooth floor operations.

INDUCTIONS FOR THE LS-4000E TILT-TRAY SORTER OFFER:

- › Dynamic functionality
- › Balancing algorithms
- › Handling a wide range of items
- › High degree of automation
- › Gentle handling
- › High capacity for best use of sorter
- › Ergonomics
- › Low noise.

SPECIFICATIONS

- Modular concept based on standard elements.
- Drive system: Linear Synchronous Motor (LSM).
- Sorter velocity: up to 3 m/sec (590 ft/min).
- Noise level: 62 dB(A).
- Maximum item length: 1000 mm (39.4") single tray; 1600 mm (63") spanning two-tray.
- Maximum item width: 1000 mm (39.4"). Maximum item weight per tray: 50 kg (110 lbs).
- Maximum frame incline/decline: Up to 10° in both straight and curve sections, optional tray design can allow for slight increase.
- Temperature range: 0°C (32°F) to +45°C (113°F); extended range possible with the addition of special heating and/or cooling elements.

