



LS-4000econ TILT-TRAY SORTER FOR AIRPORTS

BRINGING COMPACT BAGGAGE HANDLING TO REGIONAL AIRPORTS

Increased demands for security screening, redundancy and sortation accuracy require new solutions and technologies at airports. The high-speed LS-4000econ loop sorter from our Crisplant[®] product range combines the industry's most energy-efficient baggage handling technology featuring high availability and low life cycle costs with the flexibility to fit into a space-saving footprint.

FEATURES

- "One platform" controlled sorting system
- Ultra-compact foot-print using 90° induction and a minimum curve radius
- Fast and easy installation with no disruption to airport operation
- Integrated automatic encoding with optional manual encoding.

BENEFITS

- 75% reduction in energy consumption cuts costs and CO₂ emissions
- Easily scalable to meet growing capacity
- Eliminates sortation failures and reduces Left Behind Index (LBI) and lost baggage
- No bag jam as seen with pusher and diverter technology
- Minimises the number of screening machines required.

COST-EFFICIENT SYSTEM SAVES ENERGY AND SPACE



Using technology which has been field-proven in major airports around the world, BEUMER Group's new LS-4000econ sorter enables regional airports to improve baggage-handling efficiency and security, whilst reducing costs and minimising CO_2 emissions. A low capital cost, easy installation and ultra-low operating costs all combine to enable airports to replace manual baggage handling with a fully-automated system.

The LS-4000econ is a complete and configurable baggage handling system which integrates a sorter, inductions, chutes, early baggage storage, conveyors and controls into a footprint which can fit even the most spaceconstrained airport.

The ultra-low capital cost and compact footprint is achieved by combining a modular format with automated design and engineering processes. These allow the LS-4000econ to be configured using a range of standard modules to create a flexible and fullyfeatured baggage handling solution. The modular approach provides an exact fit for each individual airport's footprint and level of investment, and the expandable configuration allows capacity to grow with the airport.

ULTRA-LOW COSTS AND CO2 EMISSIONS

Based on the industry's most energyefficient sorter, the LS-4000econ reduces energy consumption by 75% compared to sorters which use conventional LIM technology. This not only reduces operating costs but also carbon emissions, allowing airports to minimise their impact on the environment.

The major reduction in energy consumption and overall life cycle costs are achieved by the use of the sorter technology which was developed by Crisplant for the innovative LS-4000 series featuring Linear Synchronous Motors (LSM)

INCREASED SECURITY AND FLEXIBILITY

As an alternative to sorting systems using pusher or diverter technologies, the LS-4000econ uses tilt-tray technology which is commonly used in airport baggage handling and known to safely handle even fragile items. Tilt-tray technology also eliminates the risk of straps and bag handles becoming trapped which can be a common problem with pushers or diverter arms.

As a cost-effective and energy-efficient alternative to conventional conveyor or carousel-based sorter systems, the LS-4000econ can be used to optimise screening by sorting baggage so that the load is balanced between available screening equipment. Load sharing on screening machines has a very positive impact on the baggage flow by increasing redundancy in addition to reducing the total number of EDS machines that are required. Integration with Explosive Detection Systems (EDS) also helps airports to comply with new TSA or EU standards for screening.





ADVANCED CONTROL SOFTWARE

The concomitant SACecon and machine controls can be integrated seamlessly with existing airport IT systems.

The software provides control of the automated baggage handling system from check-in to the destination chutes giving operators user-controlled access and upper-level control of the sorter, as well as a comprehensive overview of baggage-flow. This allows the baggage handling system to be continually optimised for maximum efficiency.

The complete sorter control solution is combined in a single platform providing SAC planning operation and machine control. An optional manual encoding station can also be included in the LS-4000econ baggage handling system.



OUT-OF-THE-BOX CONFIGURATION

The design of the LS-4000econ is based on standard modules which can be configured quickly and easily into existing systems with very little disruption to the normal operation of the airport. By configuring each system to fit the specific footprint, baggage handling capacity and number of destinations in each airport, BEUMER Group provides an automated baggage handling system which is virtually out-of-the-box.

CONTROL SOFTWARE FEATURES:

- Full functionality of the sort allocation
- IATA code handling (including bar code and RFID tag handling)
- > Code conversion of bags
- Start/stop of sorter, inductions and chutes
- Controls for re-circulation, redirection or re-screening
- > Supports different sort schemes
- System operation information and statistics
- Maintenance statistics and counters.

SPECIFICATIONS

- > A single platform sorter controller and SAC system.
- > Drive system: Linear Synchronous Motor (LSM).
- Sorter velocity: Up to 1.8 m/sec (354 ft/ min).
- > Noise level: 62 dB(A).
- Maximum item weight per tray 50 kg (110 lbs) standard carrier.
- > Baggage dimensions:
 - IATA standard
 - Additional bag length up to 1000 mm (39.4").
- > Sort direction: Right and left.
- Capacity based on one induction area: 3500 bags/h (expandable configuration allows capacity to grow with the airport).







BEUMER Group A/S P.O. Pedersens Vej 10 DK-8200 Aarhus N Phone: +45 87 41 41 41 info@beumergroup.com

www.beumergroup.com

BEUMER Group reserves the right to make modifications that serve technical progress.

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