BEUMERGROUP

BG SORTER ET
HIGH CAPACITY TILT-TRAY SORTING

The BG Sorter ET introduces innovative features which all help increase the level of efficiency, throughput and flexibility for high-capacity automated sortation.

A new closed-deck tray technology and real-time wireless communications help to ensure the highest quality of sortation and safe handling of items. These features allow almost all items to be handled through the automated system resulting in higher efficiency and later cut-off times for customers.

The BG Sorter ET also minimises Product Life Cycle Costs (PLCCs) due to the reduced maintenance levels and operating costs delivered by its energy-efficient technologies. The system also contributes to the environmental sustainability and to an improved return on investment (ROI).

FEATURES

- High-capacity sortation with the widest mix of items
- Modular design with flexible configurations and drive system options
- Energy-efficient drive system
- Optimised operation with intelligent communication.

BENEFITS

- Highest possible availability and flexibility to optimise capacity
- Optimum sortation quality from real-time wireless communication
- Safe handling during induction with item monitoring
- Diagnostic tools and condition monitoring provide lower product life-cycle costs.

LOGISTIC SYSTEMS

HIGH CAPACITY, HIGH SPEED TILT-TRAY SORTATION SYSTEM

INTERMEDIATE COVER DESIGN ADDS SAFETY

A new intermediate deck design extends the proven capabilities of tilt-tray technology and brings greater item safety to the sortation process.

The intermediate deck is an innovative and easy solution, developed by BEUMER Group, to prevent items becoming trapped between trays in airports and distribution centres. The cover closes the gap between individual trays with a movable deck which accurately follows the movement of the sorter. The use of a high-strength, low-friction material means that cover is very robust and able to operate with minimal wear-and-tear. This solution significantly reduces the risk of sorter jams or crashes and adds more flexibility to handle odd size items.

A choice of tray width and pitch adds to the sorter's flexibility. The capacity provided by these options ensures that the BG Sorter ET delivers maximum efficiency and throughput.

REAL-TIME COMMUNICATIONS IMPROVE SORTATION QUALITY

Wireless communication provides contactless, secure and interference-free data transmission for the sorter controls.

Real-time communication optimises efficiency with sortation accuracy timed down to milliseconds. This precise level of control enables full optimisation of the discharge process.

The wireless sensors can communicate with all sorter components to instantly adapt the discharge profiles or by-pass a full chute by re-routing items on-the-fly. This new feature is a big step up from conventional infrared technology that has to link to multiple sensors.

INDUCTION UNITS FOR THE BG SORTER:

- 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

‘NO WEAR’ TECHNOLOGY CUTS MAINTENANCE COSTS

The BG Sorter ET is designed to minimise maintenance costs throughout the system. In addition to being advanced diagnostic and condition monitoring ready, the sorter’s special features also include a contactless energy supply and the elimination of contact between the moving parts of the sorter. These features help the BG Sorter ET to reduce maintenance costs significantly compared to conventional systems.

Cost is removed by minimising spares inventory and maintenance levels. The advanced diagnostic and condition monitoring tools ensure early detection of potential malfunctions to support a more proactive and targeted maintenance programme. In addition, remote configuration directly from the control room or BEUMER Group’s Hotline Support contributes to a reduction in sorter down-time.

ENERGY-EFFICIENCY AND RELIABILITY DRIVE LOWER PLCCS

Optimised availability and reliability are combined with a choice of energy-efficient drive systems to reduce Product Life Cycle Costs (PLCCs).

The BG Sorter ET offers a choice of an OptiDrive system or Linear Synchronous Motors (LSMs). Both systems deliver high energy efficiency which reduces operational costs. The reduced energy consumption also makes a significant contribution to improving the environmental sustainability of the sorting process.

With its robust steel frame and high build quality, the BG Sorter ET is designed to provide assured long-term reliability and a return on investment. The use of a common sorter platform and frame adds to the system modularity and longevity by enabling easy extensions or upgrades which can help deliver further increases in capacity.

CHUTES FOR THE BG SORTER:

- Optimal arrangements for every type of packing and palletizing procedure
- Gentle handling
- Batch segregation
- Smooth handling to minimise jams
- Ergonomics for efficient end-of-chute operations
- Efficient layout

SPECIFICATIONS

- Drive systems: OptiDrive or Linear Synchronous Motor (LSM)
- Power supply: Contactless energy supply
- Real-time wireless communication system
- Maximum item length: 1000 mm (39.4”) single tray and 2000 mm (79”) spanning two trays
- Maximum item width: 1000 mm (39.4”)
- Maximum item weight per tray: 60 kg (132 lbs)
- Sorter speed: up to 3 m/sec (590 ft/min)
- Tilt-tray configurations:
  – Tray width min. 700 mm (28”)
  – Tray width max. 1100 mm (43”)
  – Increment width: 100 mm (4”)
  – Tray length min. 500 mm (20”)
  – Tray length max. 1300 mm (51”)
- Sorter frame: steel

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