BEUMERGROUP

BG LINE SORTER
NEXT-GENERATION LINE SORTING

INTRODUCING NEW CAPABILITIES

The BG Line Sorter sets new benchmarks for mid-size-volume material handling by combining the simplicity of a line sorter with the handling capabilities of a high-speed cross-belt sorter.

The introduction of BEUMER Group's unique slat-belt technology enables the BG Line Sorter to extend the handling mix by sorting the widest possible range of items whilst its modular design provides the flexibility to optimise the use of space and ensure the scalability to support future growth.

FEATURES

- Active slat-belt technology enables new handling capabilities
- Modular design with high space efficiency and scalability
- Ultra-low maintenance
- Field-proven belt and motor technologies.

BENEFITS

- Reliable and precise sortation across the widest mix of item shapes and sizes
- Easy installation with the scalability to meet future changes in capacity
- Low-friction components ensure endurance and high system availability
- Lower maintenance costs than conventional line sorters.

LOGISTIC SYSTEMS

ACTIVE SLAT-BELT TECHNOLOGY EXTENDS THE HANDLING MIX

HIGH MODULARITY MEANS GREATER FLEXIBILITY

The BG Line Sorter replaces the sliding shoe discharge mechanisms used in conventional line sorters, with the textured belts and cross-belt discharge technology used in BEUMER Group's well known high-speed loop sorters. This innovation enables the BG Line Sorter to extend the handling mix and to sort items ranging from the smallest polybags to duct-taped shipments of car tires, in addition to ensuring accurate positioning of items.

By closing the gaps in the handling capabilities of conventional line sorters, material handling companies can reduce the percentage of non-conveyable items to achieve a lower handling cost per item and contribute to higher profitability.

MODULAR DESIGN: SPACE-EFFICIENCY AND SCALABILITY

As a modular system, based on standardised units, the BG Line Sorter extends flexibility into the layout design and possible future extension.
The versatility of the modular design means that the sorter can be configured to provide the highest level of space efficiency and can be reconfigured or upgraded throughout its lifetime with minimal system down-time.

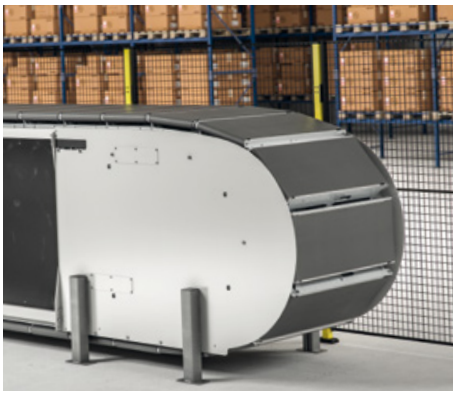
This also allows the sorter to be expanded, re-positioned or moved to a new building, and provides the scalability to respond to future business growth. Each standard unit is pre-assembled with the mechanical and electrical components, IT and controls and then fully tested and certified in-house prior to installation. This provides almost plug-and-play operation, with very few connection points per unit, for faster installation and commissioning.

PROVEN TECHNOLOGY AND ROBUST EFFICIENCY

Although the use of active slat-belts technology and Linear Synchronous Motors (LSMs) represents a paradigm shift in line sorting, these features are already used in BEUMER Group's field-proven high-speed, cross-belt loop sorters.

The BG Line Sorter uses the highly durable belts and maintenance-free motor technologies that have helped BEUMER Group customers to reduce energy consumption and maintenance costs for high-volume loop-based systems.

The active slat-belt units are manufactured in a standard pitch size and belt length and have been proven in tests, as well as in live BEUMER Group systems worldwide where they sort billions of items per year.



ULTRA-LOW WEAR-AND-TEAR

The LSM drives also enable the BG Line Sorter to set an ultra-low benchmark for Product Life-Cycle Costs (PLCCs). With no contact between the stationary part and moving part of the drive, the LSMs provide ultra-low wear-and-tear, which results in lower maintenance levels and costs and contributes to higher levels of reliability and system availability. The combination of extended component lifetimes and a minimum number of parts helps to reduce the spares inventory. With no contact between stationary parts and moving parts of the drive, the BG Line Sorter also achieves ultra-low levels of acoustic noise to ensure a safer and more comfortable working environment for staff.

SERVICE ACCESSIBILITY

With only a few moving parts, the wear and tear is kept to a minimum and the straight forward accessibility to all parts inside the BG Line Sorter also helps to minimise maintenance times. The simplicity in design allows for easy access to wear parts for fast replacement. Maintenance access is provided to each slat belt unit without having to disassemble the cart.

SORTER CONTROLS

The next-generation BG Line Sorter is based on scalable system architecture and uses industry-standard software and controls.

The low level control system is based on a centralised PLC control with distributed I/O. The ProfiNet ensures stable and reliable communication with a high degree of flexibility. The BG Line Sorter features infrared data communication (IrDA) to and from the carrier controllers as well as the possibility to integrate BEUMER Group's SCADA system.

THE BEUMER GROUP HIGH LEVEL CONTROL SYSTEM INTEGRATES SEAMLESSLY WITH HOST SYSTEMS AND HELPS ENSURE EASY ACCESS TO VITAL MANAGEMENT INFORMATION.

- Warehouse Management Systems (WMS)
- Material Flow Control (MFC)
- Warehouse Control Systems (WCS)
- Subsystems and peripheral equipment

SPECIFICATIONS

Active slat-belt technology handling capability:

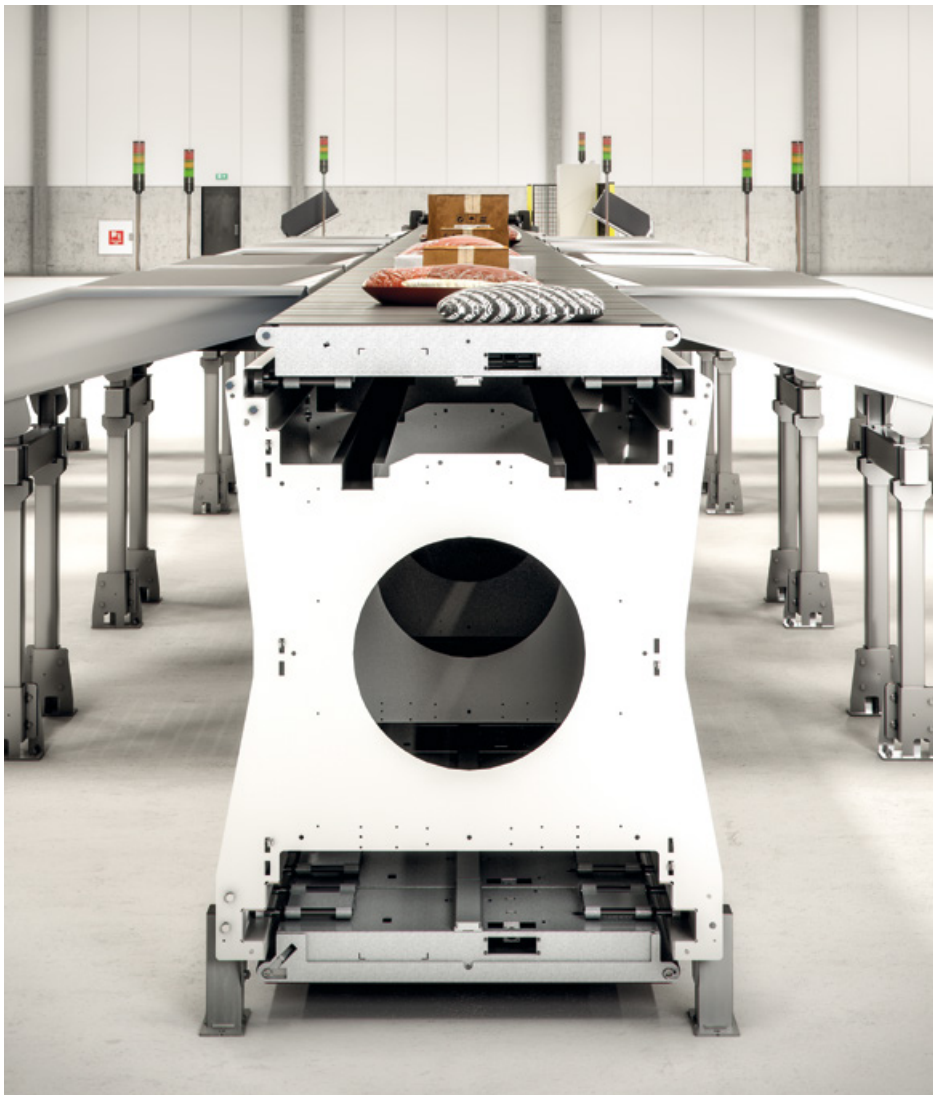
- Parcels, flats, totes, sacks, sealed bags, polybags, fragile and high-friction items.
- Maximum item width: 800 mm (32”).
- Maximum item length: 1500 mm (59“).
- Maximum item weight: 25 kilos (55 lbs) single belt 50 kilos (110 lbs) if occupying multiple belts.

Capacity:

- Theoretical capacity: 1,500-10,000 items/hour.
- Minimum BG Line sorter length: 15 m (49ft).
- Extendable in modules, length: 2.95 m (6.6 ft).

Controls:

- BG Software Suite based on Siemens PLC, SIMATIC S7-1500 series.
- Available for Allen-Bradley.



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