



CRISBAG®

TOTE SYSTEM FOR AIRPORTS

BRINGING REDUNDANT, END-TO-END BAGGAGE HANDLING TO AIRPORTS

CrisBag® is a best-in-class tote-based ICS baggage handling system, designed for use in airports, combining baggage sortation, early baggage storage and transportation in one system. Each item of baggage remains in the same individually-controlled tote throughout the complete baggage handling process from check-in to early baggage storage, in-tote screening and transportation to discharge. This enables CrisBag to deliver 100% tracking and traceability at every stage of the baggage handling process.

FEATURES

- › High capacity baggage handling system
- › Compact and modular design with a wide range of standard modules for flexible configuration and smallest footprints
- › All elements factory tested and quality guaranteed before shipping
- › 'One bag per tote' and a unique 'one tote per section' concept
- › In-tote screening eliminates the need to remove baggage from the tote
- › Three tote sizes; standard and large totes running on same track.

BENEFITS

- › Fast, safe and flexible baggage handling from check-in to discharge
- › 100% accurate track-and-trace of baggage at every stage of the handling process
- › Ultra-low energy consumption and maintenance cost
- › Compact and custom configuration for each airport using standard modules
- › No more bag jams due to straps or other bag specifics.

HIGH CAPACITY MODULAR DESIGN



HIGH MODULARITY MEANS GREATER FLEXIBILITY

The CrisBag system from the Crisplant product range offers the ability to re-route baggage during the journey through the baggage handling system.

A further redundancy feature lies in the system's ability to reverse totes to travel alternative route should this be necessary.

Using a wide range of standard modules means that CrisBag is flexible enough to deliver systems ranging from the very small and simple, to extremely large and highly complex.

Each system can combine a mix of baggage handling elements, such as top- and side-loaders and discharges; with straight, curved, merge and divert transport sections which can be installed at angles ranging from 0 to 15 degrees. The unique combination of these standard modules allows CrisBag to be exactly configured to fit any airport. High efficiency and space

saving are achieved by allowing empty totes to be stacked rather than re-circulated.

The combination of 3D movement, tote stacking, and a low section height supports the creation of ultra-compact systems with a minimum footprint and tight vertical integration. CrisBag can, for example, be installed immediately below a ceiling to free valuable floor-space and make best use of every centimeter of vertical space.

IN-TOTE SCREENING

In-tote screening allows airports to meet the EU Standard 3 and TSA screening regulations. By eliminating the need to remove baggage from the tote during screening, CrisBag not only reduces screening times, but also ensures that each tote, and each item of baggage, is fully tracked and 100% traceable from check-in to discharge.

GREENER AND MORE EFFICIENT

Innovative features, such as an adaptive tilt mechanism and a gearless drive

system, help CrisBag to deliver ultra-low energy consumption, and to minimise maintenance costs and spares, thereby obtaining the lowest OPEX in the market.

The adaptive tilt mechanism automatically switches between static and dynamic tilt for baggage discharge. By monitoring upstream and downstream baggage flows, CrisBag selects dynamic tilt to discharge bags, on-the-fly, or switches to static tilt, with lower throughput, less stress to components and lower energy consumption, during off-peak periods. CrisBag also features bi-directional tilting.

Each CrisBag section is independently controlled and features a unique start/stop function which intelligently powers-off sections immediately when not in use.

This advanced drive technology not only reduces total energy consumption by 60%, compared to a conventional conveyor system, but also reduces maintenance costs. Tests in live installations show that each individual section is in operation for only about 10% of the total

system run-time, which also reduces maintenance hours and minimises the need for replacement parts.

ULTRA-LOW MAINTENANCE AND PRODUCT LIFE CYCLE COSTS

The modules within the CrisBag system are based on a standard format so that each module can be used in different parts of the system. This significantly reduces spares inventory, without compromising flexibility or performance. Availability and redundancy are optimised through double belts and the possibility for reverse operation.

The energy-efficient drive system uses motors which are controlled by frequency inverters. This eliminates the need for a gear box and also means that the system has no oil leaks.

The use of strong but lightweight components means that only one person is required to lift and move each CrisBag section, which also reduces maintenance man-hours and costs.

All CrisBag elements are factory tested and quality guaranteed before shipping, reducing the integration risk to a minimum.

The CrisBag is a proven technology with more than 100 km of the baggage handling system installed in various airports across four continents.



CRISBAG® STANDARD MODULES

Baggage handling

- › Side loader
- › Top loader
- › Adaptive discharge with dynamic and static tilt
- › Manual handling station
- › Service/walk-through

Basic transport

- › High speed section
- › Straight section
- › Curved section
- › Acceleration/deceleration section

Flow split/merge

- › Diverter
- › Merger
- › 90° transfer
- › Vertical sort
- › Lifts

Storage

- › Early baggage storage (EBS)
- › Stacker/empty totes storage

CrisBag totes

- › Standard baggage tote
- › Large baggage tote
- › Oversize baggage tote

SPECIFICATIONS

Speed

- › 0.5 - 10 m/sec (1.6 – 33 ft/sec)
- › Nominal sorting: 2.3 m/sec (7.6 ft/sec)
- › Capacity
- › Dynamic discharge 3,000 totes/h
- › Static discharge 1,800 totes/h

Baggage dimensions

- › Minimum baggage size
- › Length: 150 mm (6 in)
- › Width: 50 mm (2 in)
- › Height: 50 mm (2 in)
- › Weight: 0.5 kg (1 lbs)

Maximum baggage size

- › Length: 2100 mm (83 in)
- › Width: 750 mm (30 in)
- › Height: 550 mm (22 in)
- › Weight: 75 kg (165 lbs)

Standard tote size

- › Length: 1150 mm (45 in)
- › Width: 900 mm (35 in)
- › Height: 200 mm (8 in)
- › Weight: 14 kg (31 lbs)

Large tote size

- › Length: 1650 mm (65 in)
- › Width: 900 mm (35 in)
- › Height: 200 mm (8 in)
- › Weight: 19 kg (42 lbs)
- › Oversize tote also available

