AUTOMATION BUSINESS UNIT

BAGGAGE HANDLING SOLUTIONS

↖ LEONARDO

BAGGAGE HANDLING SOLUTIONS

Leonardo provide reliable, efficient and complete solutions for Baggage Handling Systems (BHS).

Airlines and airports recognize the passengers' desire for more efficient and safer baggage services, with no mishandling or losses and with the ability to handle bags with high friction surfaces (e.g. wrapped in the protective plastic film or with rubber parts), with irregular shapes, with sticking out wheels and laces or flabby bags. New regulations require also higher security standards for the passengers and their baggage: the IATA resolution 753 requires the full tracking of all bags during their entire trip.

Moreover, airport authorities are looking for solutions that can give more value to their investments, (e.g. longer lifetime and lower operation and maintenance costs of the systems).

With an experience of more than 25 years and a worldwide presence, Leonardo is one of the main players in the market of Baggage Handling Systems. The innovative range of offered baggage handling products, combined with the expertise in airport processes, make Leonardo the ideal partner for airport operators.
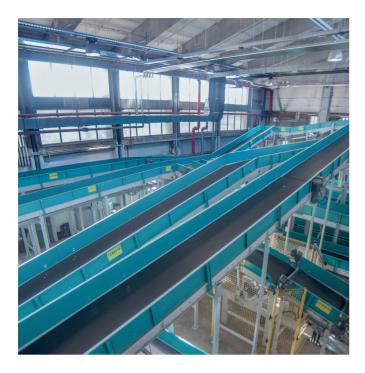

KEY FEATURES
- Leonardo provides both complete BHS turnkey solutions and single products suitable for the integration in wider solutions.
- Leonardo's wide experience in the field of the sorting systems includes a number of implementations of "open heart" projects, where the building and the integration of the supplied systems does not interfere with the operation of the existing ones.
- Specialized baggage handling simulators are used to support customers in defining the most effective and best adapted solution for the specific airport
- Leonardo also has an offering in the Airport Security sector, with consolidated perimeter control systems, attendance logging and access control using biometric recognition techniques.

Leonardo portfolio include:
- MBHS® cross-belt sorter
- Conveyors diverters and other components: conveyor suite including vertical and orizontal diverters and a complete range of conveying components
- Make-up and reclaim carousels
- ATR (Automatic Tag Reader), with optional integrated RFID or OCR
- Integration with HBS (Hold Baggage Screening)
- EBS (Early Baggage Storage) solutions and integration
- Control systems (PLC)
- EasyAirport IT Solution
- Services Solutions

MBHS CROSS BELT SORTER

Leonardo provides an innovative reliable BHS solution based on the Multisort Baggage Handling System (MBHS®), a cross-belt sorter which is the preferred technology for baggage processing, as it ensures optimum handling for all items, including objects that are fragile, have prominent wheels or high friction surfaces or are irregular in shape. Advanced technologies, such as linear motors, inductive power distribution and WiFi data transmission, give this product an extremely high reliability, a sorting capacity up to 10,000 baggage per hour and an operational flexibility that allows significant savings in O&M cost.

The intrinsic redundancy and the lower footprint of MBHS® also allow the design of more efficient BHS systems.Reliability and longer lifetime of the systems and thecomponents have been the criteria for the design ofthe MBHS® architecture.

The MBHS® cross belt technology guarantees the precision and smoothness of the handling: no bags can stay stuck due to hanging of straps or to the high adherence of surfaces.

MBHS® allow to reduce the friction and the wear out of the mechanical parts. All these features give a remarkable decrease of the maintenance effort, eliminating de facto the operational stops outside the preventive maintenance periods.

Due to the chosen technical solutions, MBHS® can be configured with chutes in the curves. The unloading precision allows the use of narrower chutes, reducing the overall size of the sorting plant.

CONVEYORS, DIVERTERS AND OTHER COMPONENTS
The Leonardo catalogue includes a number of baggage handling products:

- Check-in belts with scales
- Conveyors
- Vertical and horizontal diverters
- Pushers

All these components of baggage handling systems have been designed with reliability and maintainability criteria defined for the entire products' line.

Specific components of baggage handling systems from top market manufacturers can be integrated in our solutions depending on specific operational needs and constraints.

MAKE-UP AND RECLAIM CAROUSELS
Overlapping flaps carousels, flat and inclined, are parts of the Leonardo suite of product dedicated to the baggage handling.

These carousels can be configured with stainless steel or painted steel bodies and are suitable for make-up use, in departure sorting systems, or baggage reclaim in the arrival halls.

ATR (AUTOMATIC TAG READER), WITH OPTIONAL INTEGRATED RFID OR ODR
Leonardo solution includes advanced products for the automatic reading of the baggage tags using standard barcode readers, RFID readers and OCR (Optical Character Recognition).

This solution is based upon primary market OEM components. In particular, OCR ATR can read the characters printed on the tag and identify the destination flight even if the barcode is not read or the BSM is not available. This allows a significant reduction of manual coding operations and mishandled bags.

INTEGRATION WITH HBS (HOLD BAGGAGE SCREENING)
The security of the air transportation being the top priority of all airport authorities and airlines, Leonardo paid a particular attention to the design of its solutions for the integration of the last generation baggage screening machines (Standard 3).

The design of the layouts of baggage handling systems always keeps into account both the requirements for the security related "waiting times" and the needs for a fast flow of the "clean" bags, in order to achieve the higher possible throughput with the maximum security level.

EBS (EARLY BAGGAGE STORAGE) SOLUTION AND INTEGRATION

EBS solutions are available within the Leonardo portfolio; alternatively products from market manufacturers can be integrated.

A special attention is dedicated during the design phase to the selection of the best solution to fulfill the requirements in terms of process flexibility and expandability.

EASYAIRPORT IT SOLUTION

Leonardo developed a proprietary High Level IT Solution for Baggage Handling Systems(BHS): EasyAirport®, designed following the IATA RECCOMENDED PRACTICE 1800, manages all the functionalities related to baggage handling, for outbound, transfer and inbound bags.

The suite of Leonardo products is developed to provide full turnkey solutions: all the control systems, and the Baggage Reconciliation system, are ready for the the integration with the upper-level IT systems of airport information technology infrastructures.

The solution is based on a top level commercial platform and is ready for the integration with global airport monitoring systems through standard protocols. EasyAirport has been designed entirely by Leonardo following the IATA recommended practices.

The modular software suite is able to manage all the functionalities related to baggage handling, including outbound, transfer and inbound bags.

The solution allows the management of all the sorting processes, planning and flight assignment.

The software provides the operators with the information for the management of the system including the possibility to search data collected and stored in the system (reports, statistics and diagnostics).

EasyAirport interfaces with external airport, controls (PLCs) and SCADA systems.

SERVICES SOLUTIONS

Leonardo offers a wide range of services:

- Maintenance Engineering
- Spare parts
- On-site support - e.g. audits, preventive maintenance, urgent interventions
- Maintenance and operation with dedicated teams on site
- Training and experience transfer
- Improved and updated systems

With a presence of over 300 people on site and a back office of 75 people, we support our customers throughout the life cycle of their facilities.

Leonardo is official member of:

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