AUTOMATED GUIDED VEHICLES FOR AIRPORT BAGGAGE HANDLING

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HIGH-SPEED AGV FLEET FOR UNITARY BAGGAGE TRANSPORT

A BAGXONE baggage handling solution comprises high-speed AGVs (Automated Guided Vehicles) designed to handle individual bags as an alternative to conveyor based solutions. Our AGVs can cover short distances (i.e. check-in to screening machine, screening machine to make-up carousel) or long distances (i.e. link between two terminals) and are easily adaptable to suit scalability and redundancy requirements.

BAGXONE solutions can be used in secure areas at speeds up to 7.5 meters per second, or in mixed areas at reduced speeds of up to 3 meters per second. If capacity requirements increase or there is an expansion of the baggage system, new AGVs can be added to extend the solution with seamless commissioning.

Capable of horizontal transfer or dynamic transfer (from above,) for seamless load/unload, BAGXONE easily interfaces with other baggage handling system components and knows its position and its environment in real-time. With geo-location technologies and advanced navigation, routing is assisted by area reflectors and contour navigation allowing for trajectory accuracy according to environmental factors such as height limits and speed zones. A BAGXONE can avoid obstacles by modifying its trajectory on-route.

The solution is controlled by BAGWARE and the AGV Manager software, combined with operational support tools, including opportunity charging to ensure and continuity of service. Fleet communication is based on a system-specific, highly secure protocol.

USE CASE SCENARIOS

• Link between two terminals
• Transfer bags
• Check-in to screening machines
• Screening machine to bag store
• Screening machine to make-up
• Screening machine to inspection (acting as a manual inspection table)
• Feeding bag store lines

ADVANCED SAFETY FEATURES

An embedded safety laser scanner guarantees safe navigation for use in mixed zones with the presence of authorized operators.

The device will automatically stop if a person or object appears in its safety field and the unit will automatically restart when the path is clear, reducing downtime.

EASY MAINTENANCE

BAGXONE has been designed to ensure optimal maintainability.

The accessibility of each component has been studied to facilitate fast and easy maintenance and our BAGXONE fleets can be covered under one of Alstef Group’s tailored maintenance
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BAGXONE AGV fleets are easy to maintain, flexible, and scalable. Each unit provides 100% real-time traceability ensuring tracking and redundancy requirements are met.

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[Images of baggage handling equipment]