Reliability Saves Time and Money and Enhances Security

Baggage Handling Systems
As an airport operator, you need strong partners to supply you with a baggage handling system that meets all your requirements.

Siemens Industrial Solutions and Services, one of the business groups within Siemens, is the world’s leading supplier of material handling solutions. We have implemented more than 1,000 logistics systems worldwide – over 350 of them at airports. Decades of experience working with airport operators all over the world have given us a wealth of knowledge. By working in close consultation with our customers throughout the planning and development phases, we find the right mix of the "tried and tested" and the innovative.

We are a single-source supplier, providing everything from planning, mechanical systems and IT solutions to service and maintenance.

We apply our knowledge to analyze processes and to develop, implement, integrate, and support your systems to ensure reliable performance at the highest level.

Whether you need us to integrate individual components into an existing baggage handling system, increase its degree of automation or serve as general contractor to supply new baggage systems, we are your partner: dependably providing you with solutions tailor-made to meet your requirements.

Our services do not end when we hand over the system to you. We offer customized maintenance and service solutions to guarantee that your baggage handling system will continually perform at a high standard throughout its entire service life.

Siemens Airports

Besides baggage handling systems, Siemens also has a wide portfolio of other products and services. These include airfield lighting, fire protection systems, communication systems, lighting, power supply equipment, and much more. Siemens is always the right choice: your complete systems supplier.

Your Competent Partner for Reliable Solutions ...
Baggage handling systems have to meet not only today’s requirements but also tomorrow’s. The demands placed upon baggage handling systems have risen dramatically over the last few years, particularly when it comes to speed and security. A baggage handling system has to work with consistent reliability under all conditions.

An increasing number of airports are expanding by building satellite terminals. That means that baggage has to be transported between terminals at high speed through tunnels that are often underground. And major airports, which are increasingly acting as hubs, have to offer a short minimum connecting time. Not only do passengers have to be able to change planes within this time, their baggage also has to be safely stored on the connecting flight. The baggage transfer has to be reliable and handle an increasing amount of oversized baggage. Continuous and reliable baggage tracking ensures accurate, nearly error-free sorting. Modern bag systems transport the baggage smoothly to prevent damage – without interruption, 24/7, with only minimal maintenance.

Our solutions also take into account future requirements, like those arising from the enormous quantities of baggage carried by the forthcoming generation of large-capacity aircrafts. You will find us to be a reliable partner throughout all phases of your project – from the initial analysis of your needs and the project design to simulation and integration, commissioning, maintenance and service.
Airports and airlines want to move baggage as quickly as possible, passengers hate wasting time waiting for their luggage. The baggage throughput depends on the size and speed of a baggage handling system and the extent to which it must run at full capacity. All components have to interact seamlessly to achieve the required throughput. We plan our standard mechanical and control components to dovetail perfectly for fast baggage transport. With the perfect interaction of all components, your system will perform efficiently, whether it has our conventional conveyor belts or our bag system, or whether our control and IT solutions have been adopted with major or minor changes.

As a rule, the layout of the entire baggage handling system is checked and optimised using simulation before we even start construction. Using available space to the best advantage allows baggage to reach its destination as quickly as possible. Many parts of the system are designed redundantly for high reliability. Even when maintenance requirements or a fault shuts down parts of the baggage handling system, the rest of the system takes over the task and the baggage reaches its destination as planned. This design maintains the performance of the entire system.
Today’s tight baggage security regulations can be addressed by fitting an additional baggage check (100% Hold Baggage Screening) to an existing installation or by integrating such control stages with a new installation. But there are other factors affecting baggage security, such as the reliability of screening equipment, the ability to track and locate a bag at any time and the safety of the operating and maintenance personnel. Standardised modular components make a baggage system easier to operate and maintain, which in turn saves time and money.

To maintain economic efficiency, your baggage handling system needs to work reliably and quickly without compromising security. We design and install a baggage handling system to the highest professional standard, which lowers the costs of subsequent operation and maintenance. Our compact system elements and precise 3D planning make best use of the available room, which can lower your construction costs.

We prefer modular components from established suppliers (such as SIMATIC® S7 and drives from Siemens), because they ensure the reliability and quality of your installation and also save money on spare parts, maintenance and labor after commissioning.

Meeting the Highest Security Demands

Reducing Costs with Well-Conceived Concepts
The check-in counter is usually the only part of the baggage handling system that departing passengers see. For this highly visible element, we supply check-in belts to meet every requirement. You will profit from our cross-project synergies. Our local and networked installation and service expertise helps to reduce risks and significantly lower your operating costs.

For smaller projects, we provide support by analyzing the factors affecting the planned baggage handling system. Using the relevant basic data that we have established, we create a report that serves as the foundation for the specification and the design of an initial conveyor layout. Depending on the baggage handling system’s size and complexity, we test a virtual model simulating various load conditions and even disturbances to reveal any bottlenecks before the real system is built. We apply our clearly structured project management system to complete the planned baggage handling system on time and according to specifications.

In the case of large systems, our customers frequently employ independent consulting companies to put a detailed specification out to tender. In this case, we start our work by creating an optimized layout, carrying out a system simulation and submitting a commercial quotation.

As a global competence center for airport logistics, we offer a comprehensive baggage handling system portfolio: from check-in to conveyor and sorting systems to baggage reclaim, including mechanical and control systems.

We accompany you through the complete life cycle of a baggage handling system – from planning and construction through to operation. You will profit from our cross-project synergies. Our local and networked installation and service expertise helps to reduce risks and significantly lower your operating costs.

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As a global competence center for airport logistics, we offer a comprehensive baggage handling systems portfolio: from check-in to conveyor and sorting systems to baggage reclaim, including mechanical and control systems.
The performance of a baggage handling system largely depends upon the components used. We offer a complete range of products and systems, including both conventional belt conveyors and tray systems especially suited for high-speed operations. The trays are loaded and unloaded automatically. An inductive data carrier for each individual tray is automatically identified at each branch. This makes it very easy to track the exact path of each item of baggage throughout the system.

The high-speed tray system reaches a speed of up to 12 meters per second in continuous operation and can transport up to 20,000 items of baggage per hour, depending upon the number of lines. The tray system can even transport oversize baggage without difficulty.

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For all your transport tasks, we supply the components required for both belt conveyor and tray systems from a standardized range, including straight and indexing conveyors, branches and junctions and curves.

We use our newly developed high-speed diverter for branching and sorting tasks in belt systems. It can smoothly sort up to 50 bags per minute.

We also use these components to construct high-performance early baggage stores for bags that can not yet be sorted. Whether you would like to extend an existing baggage handling system or order a completely new conveyor system, we can supply what you need and meet the highest standards for quality.
Security-cleared bags have to be sorted by flight before they leave the baggage hall. We offer a wide range of sorting systems to meet all requirements. Our offerings include single sorting conveyors, high-speed diverters, pushers and vertical sorters, lift-bag and crossbelt sorters. With the active motion of the bag on the crossbelt sorters, less height is needed to sort the baggage, so money can be saved with lower building ceilings.

Our various carousel models have proven themselves worldwide. Our wide range of products include models with flat or inclined slats, with various heights, materials and carousel shapes. For oversized baggage (e.g. skis and golf bags) we supply special extra-wide conveyor belts.

The increasing proportion of transfer baggage at many airports puts particularly high demands on the baggage handling system. In addition to security aspects, fast baggage throughput is essential in order to meet the minimum connecting times. Also, bags may have to be temporarily stored in the early baggage store. Our high-speed tray system and our automatic early baggage store provide the solution.

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The right degree of automation depends on your individual requirements. The operator interface is frequently specific to the airport and of a very individual design. We have a consistent policy of standardization and modularization in this field to produce cost-effective solutions.

Totally Integrated Automation (TIA) has long been standard in Siemens control technology. It minimizes the essential engineering expenditure, reduces the installation and start-up times and helps to keep service costs down.

We also use standard components in the control room, ranging from PCs as operating stations to the visualization of the current system status (e.g. with management information software and CCTV on the wall).

Computers are the "brains" of baggage handling systems and they simplify many different tasks, from baggage management system (BMS) to supervising the operation of the system.

A management information system (MIS) shows the current system status at all times, which makes it easier to intervene quickly if a fault occurs. Other systems are designed to support the maintenance of the conveyors.

Field and Ethernet bus connections link the control and computer systems.

Baggage handling systems from Siemens Logistics and Assembly Systems are not just highly reliable. We also make sure that our hardware and software solutions are user-friendly.
Good service is crucial to the long-term reliability of complex baggage handling systems. Our comprehensive range of innovative services gives your system the highest possible level of reliability throughout its entire life cycle. Our concept guarantees the availability and optimizes the productivity of your system. We support you through all phases of your system’s life cycle – from its planning and construction right through to its operation. You also profit from our cross-project synergies. That results in reduced operating costs, minimized risks as a result of networked construction and service competence, as well as optimized system productivity.

To meet your individual needs, we put together a package from our range of innovative services. Many options are available: from the training and instruction of your employees, both before and after commissioning, to regular preventive maintenance with appropriate service intervals, hotline and on-call services with defined response times, as well as the supply of spare parts and e.g. our reliability services: our experts review your maintenance strategies and plans and apply reliability centered maintenance (RCM) approaches and root cause failure analysis to ensure optimum reliability and continual improvement, whilst keeping maintenance costs well under control.

Upon request, we can place a separate team at your disposal to handle all operating and maintenance services – round the clock, 365 days per year.

We are also happy to discuss the option of setting up a service company with the sole purpose of securing your investment.

Real Added Value for Your System: Service from A to Z
Probedruck

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Baggage Handling Systems

Airport Logistics

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