

MATERIAL HANDLING SYSTEMS


HYUNDAI
ELEVATOR CO., LTD.

Total Engineering Solution

Hyundai Elevator is a total moving solution provider that offers comprehensive engineering solutions for optimal supply. These range from providing consultations, designs as well as manufacturing and installation of automated material handling systems to maintenance and modernization.



Distribution Center



Food Storage



Cold Storage



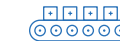
In-Process System



Petrochemical Storage



Air Cargo System



Pharmaceutical Storage



Building & Hospital Automation



01

Smart Consulting



- Identify and analyze the client's problems
-
- Evaluate the client's long-term corporate business plans and anticipate market changes
-
- Propose a plan to install the automated systems



02

Customized System Design



- Design a customized system layout
-
- Select the appropriate material handling equipments and its specifications
-
- Inspect the customized systems through the operational simulation



03

Complete Installation



- Manufacture and install the designed material handling equipments
-
- Test run the material handling equipments
-
- Educate the operators



04

Lifetime Repair and Maintenance



- Restore the material handling equipments as soon as possible in case of failure
-
- Provide regular performance management and equipment upgrade
-
- Provide routine technological support and maintenance training



DISTRIBUTION CENTER

A fast and accurate distribution is implemented by applying optimized automation equipment that handles a variety of customers' orders such as daily necessities, publications, door-to-door service freights and garments.



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- 1 Aerial view of the distribution center
- 2 Cross Belt Sorter
- 3 Steel Belt Sorter
- 4 Slide Shoe Sorter



2



3



4

Features

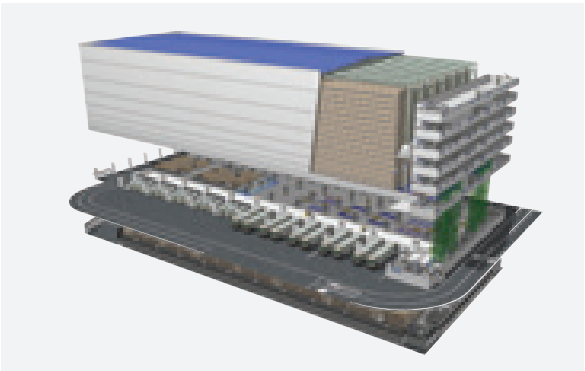
- Accurate and safe delivery of products
- Minimized the personnel required for the entire work process including shipping, receiving, storing, picking, and sorting
- Improved the speed and efficiency by applying automation appliances
- Increased the handling capacity

Major Appliances

- Auto Sorter
- Induction Conveyor
- Chute
- Telescopic Conveyor
- DPS (Digital Picking System)
- Map Cart

COLD STORAGE

As an automated storage and retrieval system that stores the refrigerated and frozen goods in extreme temperatures from 0 °C to -30 °C, it maximizes storage efficiency in limited spaces. And it achieves fast and accurate processes in shipment and warehouse management with various automation appliances and computerized programming.



1

- 1 Aerial view of the automated cold-storage warehouse
- 2 Rack
- 3 ISC
- 4 Dock Shelter

Features

- Energy saving with a maximized insulation effect
 - Thermal breaking design between racks and panels
 - Prevented the dew condensation by outside insulation and structure separation
- ISC and RTV for the cold-storage warehouse with cold-proof specifications
- Standardized appliances including ISC, Conveyor, Insulation Doors, RTV, etc.
- Convenient and safe maintenance in extreme temperatures (0°C to -30°C)
 - Easy repair and maintenance with board replacement in ISC and RTV failure

Major Appliances

- ISC (Intelligent Stacker Crane)
- RTV (Robotic Transfer Vehicle)
- Rack
- Insulation Door
- Lifter



2



3



4

PETROCHEMICAL STORAGE

As a state-of-the-art automated storage and retrieval system for petrochemical product after production, it manages the product flow before shipment by linking various automation alliances.



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- 1 Aerial view of the automated petrochemical storage warehouse
- 2 ISC
- 3 RTV
- 4 Bagging Machine



2

Features

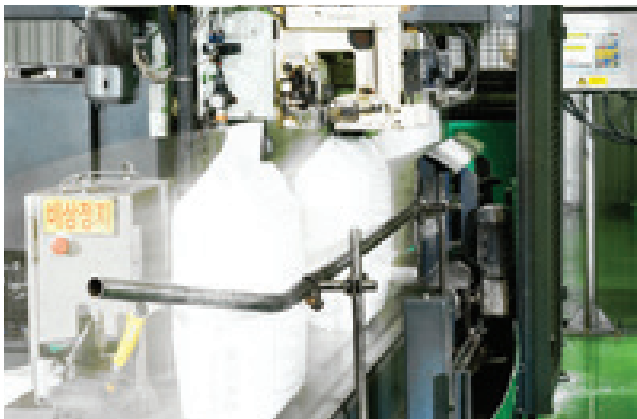
- Cutting-edge material handling appliances that are capable of managing large volume transportation (including Twin Fork ISC and Double Bed RTV)
- Comprehensive automation system for an integrated management of all processes from post-production to shipment of petrochemical product

Major Appliances

- ISC (Intelligent Stacker Crane)
- RTV (Robotic Transfer Vehicle)
- Rack
- Bagging Machine
- Palletizer
- Wrapping Machine



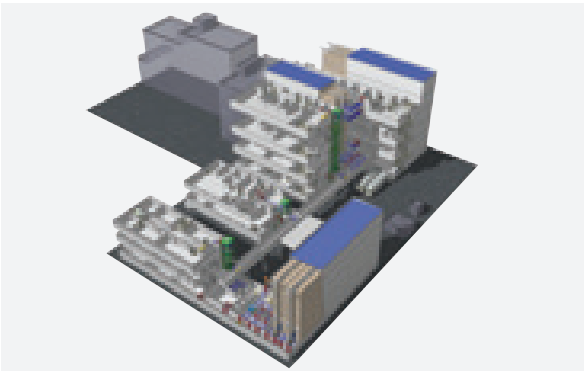
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PHARMACEUTICAL STORAGE

As an automated storage and retrieval system that meets the Good Manufacturing Practice (GMP) standards to guarantee the safety and efficacy of pharmaceutical products, it achieves an efficient storage and delivery of pharmaceuticals through optimized handling appliances.



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- 1 Aerial view of the automated pharmaceutical storage warehouse
- 2 ISC
- 3 Rack
- 4 Speed Roll Up Door

Features

- Zoning and arrangement of area according to the characteristics of the pharmaceutical products
 - Storage area (Light Black)
 - Transportation area (Gray)
 - Raw Materials Subdivision area (White)
 - Shipping and receiving area (Not Classified)
- Maximized the work efficiency by using automated picking equipment including Map Cart and DPS
- Provided validation services to meet the GMP standards

Major Appliances

- ISC (Intelligent Stacker Crane)
- RTV (Robotic Transfer Vehicle)
- Rack
- Map Cart
- DPS (Digital Picking System)



2



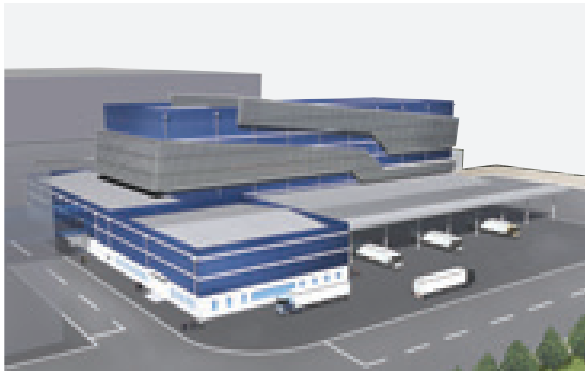
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FOOD STORAGE

As an automated storage and retrieval system for food that places top priority on sanitation, it achieves efficient storage and delivery of food products.



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- 1 Aerial view of the automated food storage warehouse
- 2 Rack & ISC
- 3 RTV
- 4 Lifter



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Features

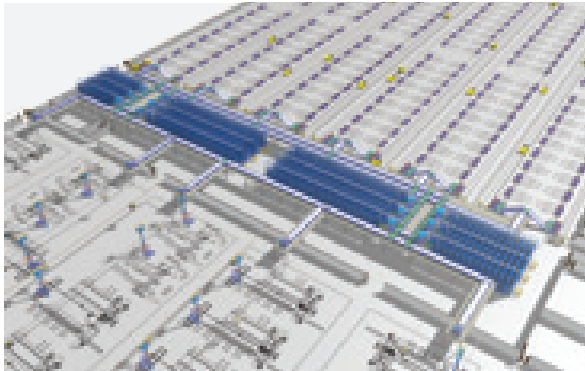
- Differentiated the design by using handling equipment with a non-contacting power supply process that does not generate dust
- Maximized the storage efficiency through high-rise automated storage and retrieval system that applies 50m-level ISC

Major Appliances

- ISC (Intelligent Stacker Crane)
- RTV (Robotic Transfer Vehicle)
- Rack
- Robot Palletizer
- Lifter

IN-PROCESS SYSTEM

This system maximizes the efficiency of production and storage by using a variety of automation appliances linked to the entire production process from raw materials to finished goods.

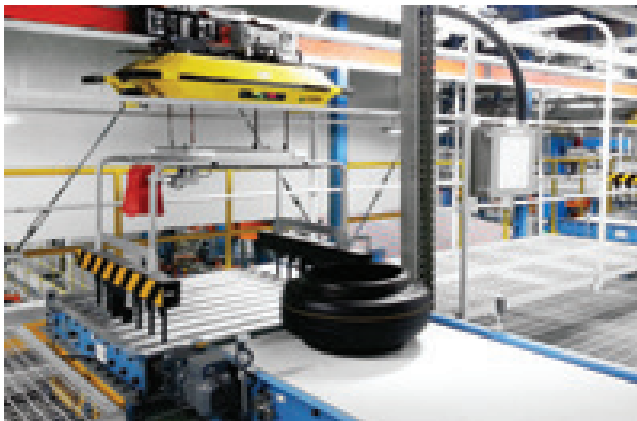


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- 1 Aerial view of the in-process system
- 2 Rack & ISC
- 3 SRV
- 4 LGV



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Features

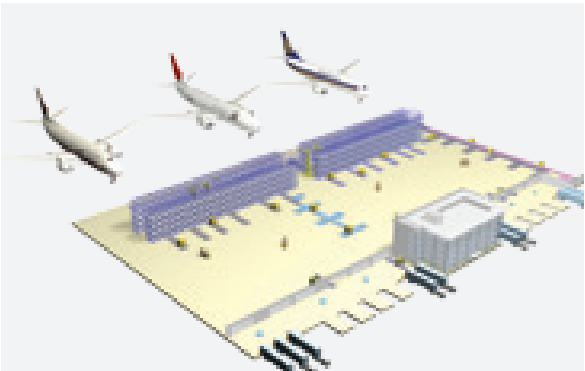
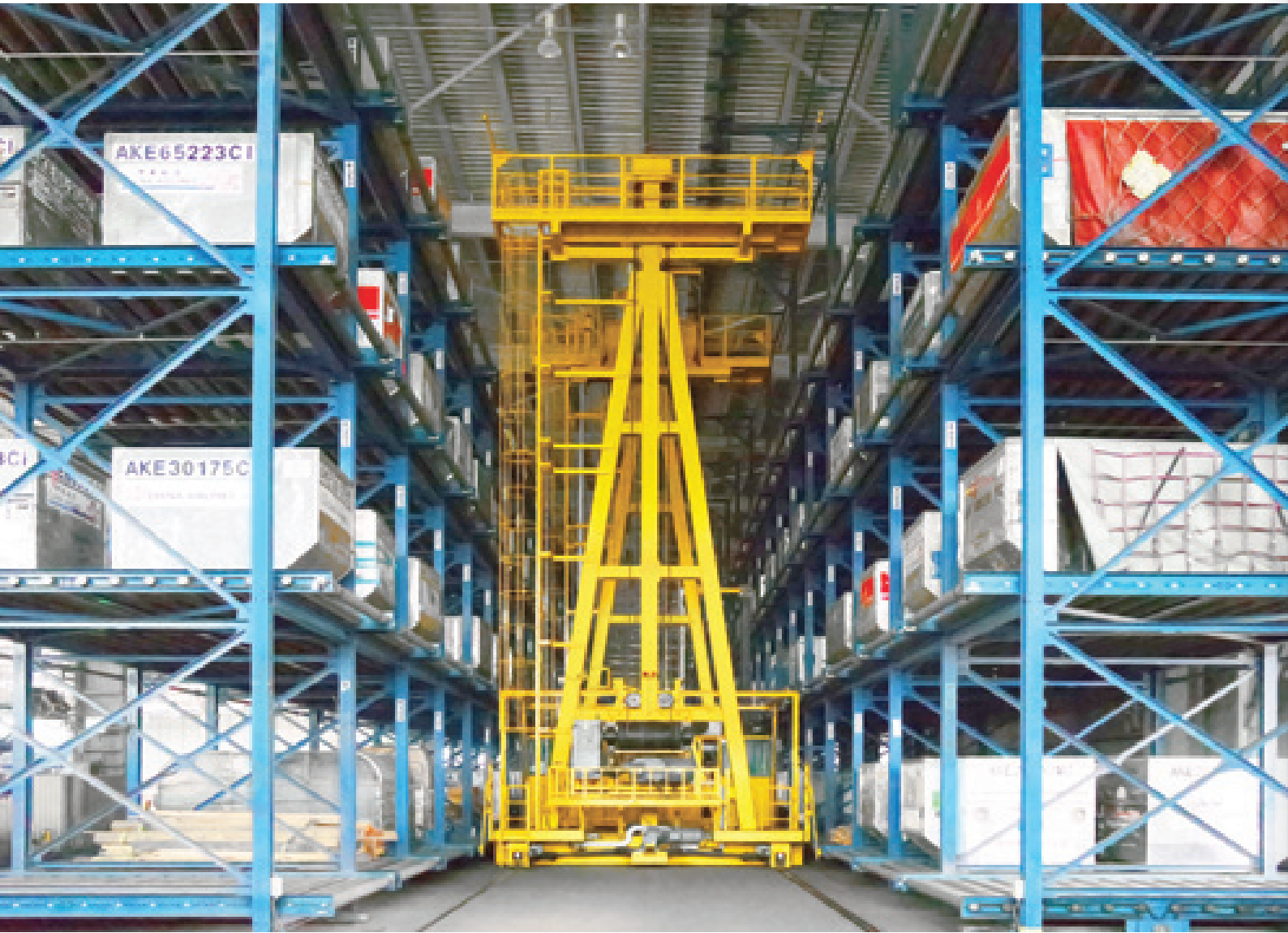
- Linked to rapid process with high-speed material handling
- Reduced the production lead time through reliable automation appliances
- Maximized the space utilization by applying SRV

Major Appliances

- ISC (Intelligent Stacker Crane)
- RTV (Robotic Transfer Vehicle)
- SRV (Sky Rail Vehicle)
- Rack
- LGV (Laser Guided Vehicle)
- AGV (Automated Guided Vehicle)

AIR CARGO SYSTEM

Optimal air cargo systems are provided by applying material handling systems and reliable IT systems that are suitable for air cargos.

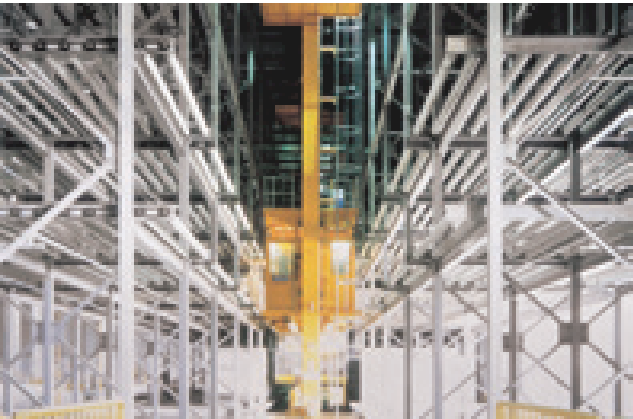


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- 1 Aerial view of the air cargo system
- 2 Rack & Workstation
- 3 ETV
- 4 TV & Workstation



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Features

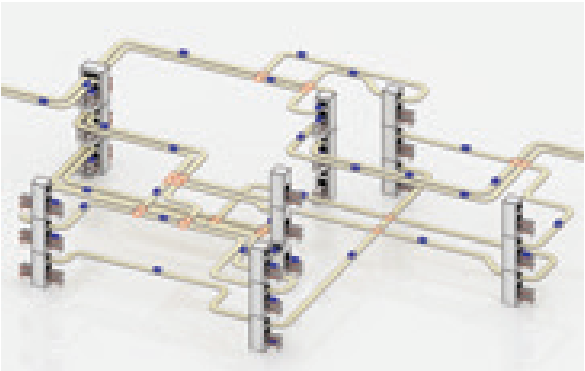
- Flexible cargo transportation between aircraft and landing zones by using a variety of appliances such as ETV (Elevating Transfer Vehicle) and TV (Transfer Vehicle)
- Efficient material data processing via linkage with cargo data processing system

Major Appliances

- Rack
- ETV (Elevating Transfer Vehicle)
- TV (Transfer Vehicle)
- Workstation

BUILDING AND HOSPITAL AUTOMATION

This system safely transports all documents, small articles, and medicines to the destination in hospitals and other locations where products are frequently transferred.



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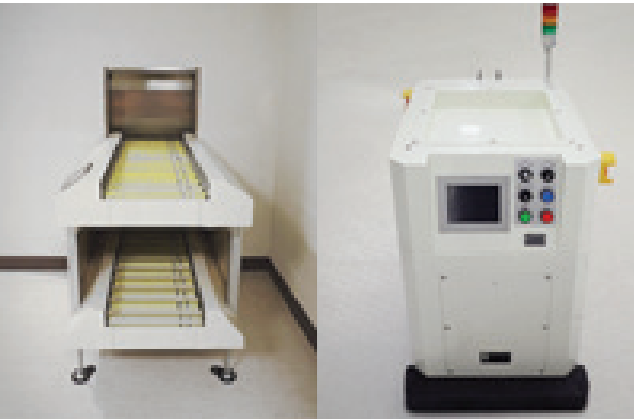
- 1 Aerial View of Building and Hospital Automation
- 2 Pneumatic Tube
- 3 Station Conveyor of Merry-go-round Type Lifter
- 4 Station Conveyor of Elevator Type Lifter/AGV



2



3



4

Features

- Quick and safe conveyance through pneumatic tubes and lifters
- Safe and hygienic conveyance by integrating a system that reflects the safety requirements of usage for wards and wastes, etc.

Major Appliances

- Pneumatic Tubes
- Station Conveyor
- Lifter
- AGV (Automated Guided Vehicle)

Enquiries on Material Handling Systems

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