

AREAS OF BUSINESS WITH LOGISTICS CONSULTING & ENGINEERING SERVICE

AUTOMATED STORAGE SYSTEMS (AS/RS)

- RACK BUILDING TYPE AUTOMATED WAREHOUSE
- BUCKET TYPE AUTOMATED WAREHOUSE
- UNIT RACK AUTOMATED WAREHOUSE
- ELECTRIC MOBILE RACK AUTOMATED WAREHOUSE

STORAGE SYSTEMS

- PALLET RACK
- HIGH RACK
- SLIDING RACK (PALLET, BOX, DANPRA, ETC.)
- ARM RACK
- LIGHTWEIGHT RACK
- HANGER RACK
- CAROUSEL RACK (VERTICAL, HORIZONTAL)
- HIGH STACKER RACK
- DRIVE-IN RACK
- PUSH BACK RACK (CART, ROLLER)
- MIDDLEWEIGHT RACK
- TAINER (IN-ROLL, CARGO PALLET)

MEZZANINE SYSTEMS

- LIGHTWEIGHT MULTI-LAYER RACK
- PALLET MULTI-LAYER RACK
- HANGER MULTI-LAYER RACK
- MIDDLEWEIGHT MULTI-LAYER RACK
- BEAM FRAME MULTI-LAYER RACK
- OFFICE MULTI-LAYER RACK

MOBILE RACK SYSTEMS

- PALLET ELECTRIC MOBILE RACK
- LIGHTWEIGHT ELECTRIC MOBILE RACK
- MIDDLEWEIGHT ELECTRIC MOBILE RACK
- HANDLING MOBILE RACK

STORAGE EQUIPMENT

- CONVEYOR SYSTEM
- SORTER SYSTEM
- LFCON SYSTEM
- FORKLIFT (VNA, REACH)

ETC.

- SAFETY PROTECTOR (RACK POST, COLUMN, GATE)
- LOADING GATE
- DOCK SYSTEM

LOGISTICS STORAGE MEZZANINE SYSTEMS

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solution for next logistics technology NEXLOGITECH, INC

CRAFTED WITH CONFIDENCE
QUALITY PRODUCTS MADE IN THE KOREA



Leading innovator in the logistics industry with cutting-edge technology NEXLOGITECH, Inc.

NEXLOGITECH is a specialized company that builds the foundation for the future logistics industry using cutting-edge logistics technology. With extensive experience and expertise in both domestic and international logistics industries and technologies, we are reinforcing our company's position as a flexible and professional enterprise.

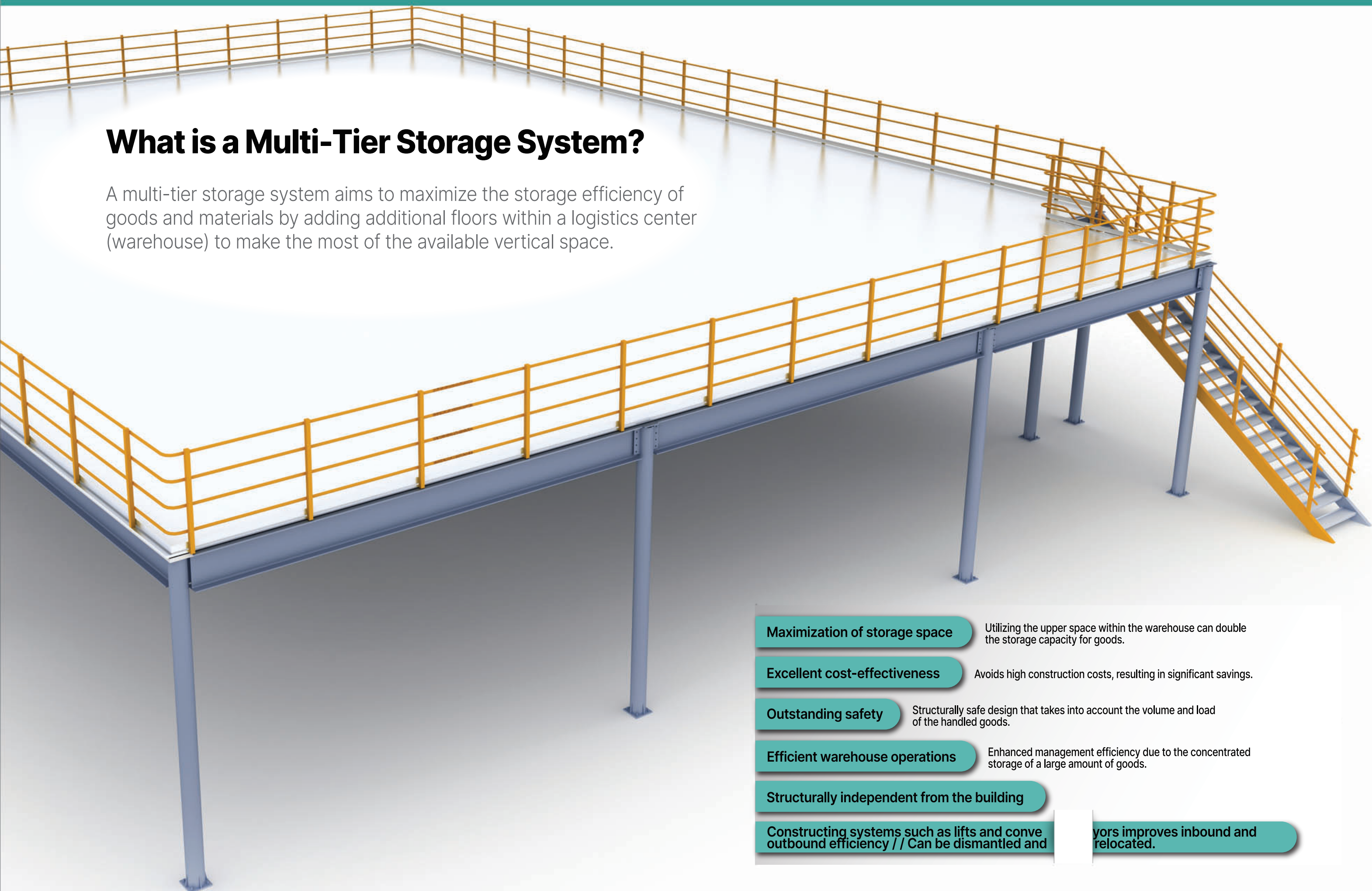
Furthermore, our in-house research institute contributes to maximizing efficiency by providing high-quality logistics engineering services through the development and accumulation of core logistics technologies. This enhances the logistics competitiveness of leading companies by constructing integrated logistics systems and introducing highly efficient logistics technologies.

With active engagement in overseas logistics industry and technology exchange, NEXLOGITECH is well-equipped become an advanced logistics company by securing a strong business foundation through the globalization of logistics technology and taking on leading roles in the logistics technology market.

Above all, as a leader in South Korea's logistics technology, NEXLOGITECH is committed to relentlessly advancing the world's best logistics industry and technology through continuous research and investment.

What is a Multi-Tier Storage System?

A multi-tier storage system aims to maximize the storage efficiency of goods and materials by adding additional floors within a logistics center (warehouse) to make the most of the available vertical space.



Maximization of storage space

Utilizing the upper space within the warehouse can double the storage capacity for goods.

Excellent cost-effectiveness

Avoids high construction costs, resulting in significant savings.

Outstanding safety

Structurally safe design that takes into account the volume and load of the handled goods.

Efficient warehouse operations

Enhanced management efficiency due to the concentrated storage of a large amount of goods.

Structurally independent from the building

Constructing systems such as lifts and conveyors improves inbound and outbound efficiency // Can be dismantled and

relocated.

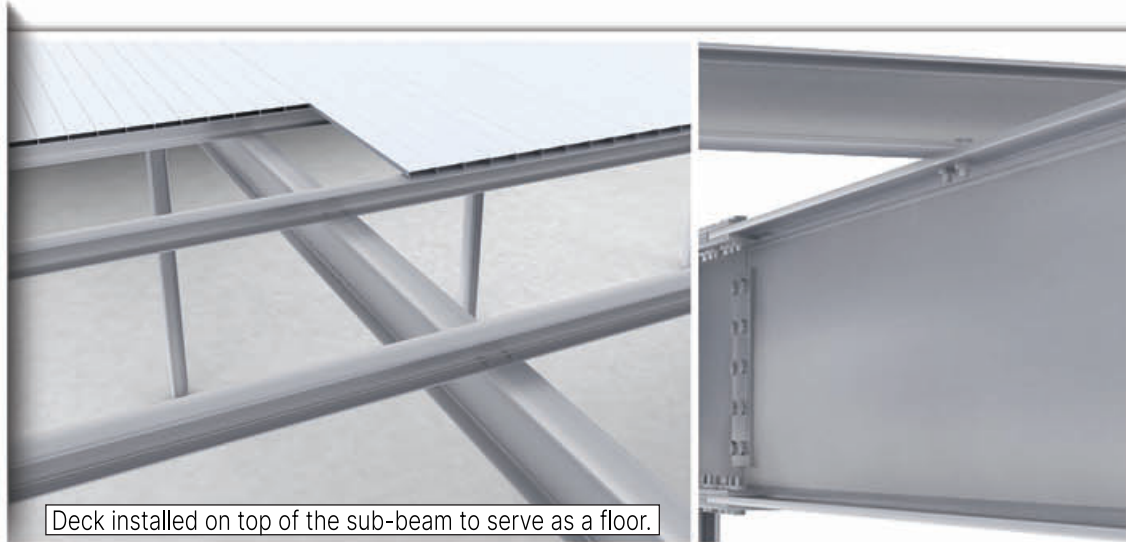
TYPES OF MULTI-TIER FRAME STRUCTURES

● H-Beam Structure (Structural Mezzanines)

This system uses standardized H-beams to construct a multi-tier rack structure (Frame). The design is based on structural calculations to ensure adequate safety and considers the load, site environment, and usage conditions during design and construction.

Advantages & Features

- This system uses standardized H-beams to construct a multi-tier rack structure (Frame).
- The design is based on structural calculations to ensure adequate safety and considers the load, site environment, and usage conditions during design and construction.



OVERSAIL SYSTEM (SUB-BEAM UPPER MOUNT)

This method involves attaching the sub-beam to the main-beam above and securing it with bolts and welding. It is mainly used in logistics warehouses with high ceilings.

Advantages & Features

- Simple and easy construction, leading to a shorter construction period.
- Minimal installation and processing costs.

Disadvantages

- Decreased space utilization due to increased floor height.
- Limited floor depth (the distance from the ceiling surface to the floor).

FIXED CONNECTION (STRONG CONNECTION METHOD)

This method involves firmly connecting the web and flange of the H-beam with bolts and welding, supporting vertical and horizontal forces while resisting rotation. It is primarily used for connecting columns and main beams.

Advantages & Features

- Can support heavy loads.
- Beneficial when the beam extension is long large distance between columns).

Disadvantages

- More complex and difficult construction compared to the pin connection method.
- Relatively high construction costs.



PIN CONNECTION (SHEAR CONNECTION METHOD)

This method involves connecting only the web of the H-beam with bolts, supporting vertical and horizontal forces, while not connecting the flange. It is primarily used for connecting main beams and sub-beams.

Advantages & Features

- Comparatively easy construction and quick installation.
- Relatively lower construction costs.

Disadvantages

- Less favorable when the beam extension is long.



ROUND COLUMN TYPE

Advantages & Features

- Aesthetically pleasing appearance with a wide view and excellent space utilization provides higher satisfaction for logistics center users.
- Lower risk of accidents for workers.
- Base finish : Non-shrink concrete.

Disadvantages

- Processing and material costs are relatively higher compared to H-beam.



SQUARE COLUMN TYPE

Advantages & Features

- In comparison to circular columns, square columns make joining with other materials and welding easier, and they do not roll when used as horizontal components, which simplifies assembly and erection.
- Base Finish: Shrinkage-free concrete.

Disadvantages

- The processing and material costs are slightly higher than for H-beams



H-BEAM COLUMN TYPE

Advantages & Features

- Exceptional construction performance, economic efficiency, and sectional performance.
- The most cost-effective option in terms of processing and material costs.
- Structurally, it is the safest component.
- Base Finish: Shrinkage-free concrete.

Disadvantages

- There is a risk of safety accidents when logistics center workers collide with the columns.



TYPES OF MULTI-TIER FRAME STRUCTURES



Shelf Supported Mezzanine Structure

This system uses standardized H-beams to construct a multi-tier rack structure (Frame). The design is based on structural calculations to ensure adequate safety and considers the load, site environment, and usage conditions during design and construction.

Advantages & Features

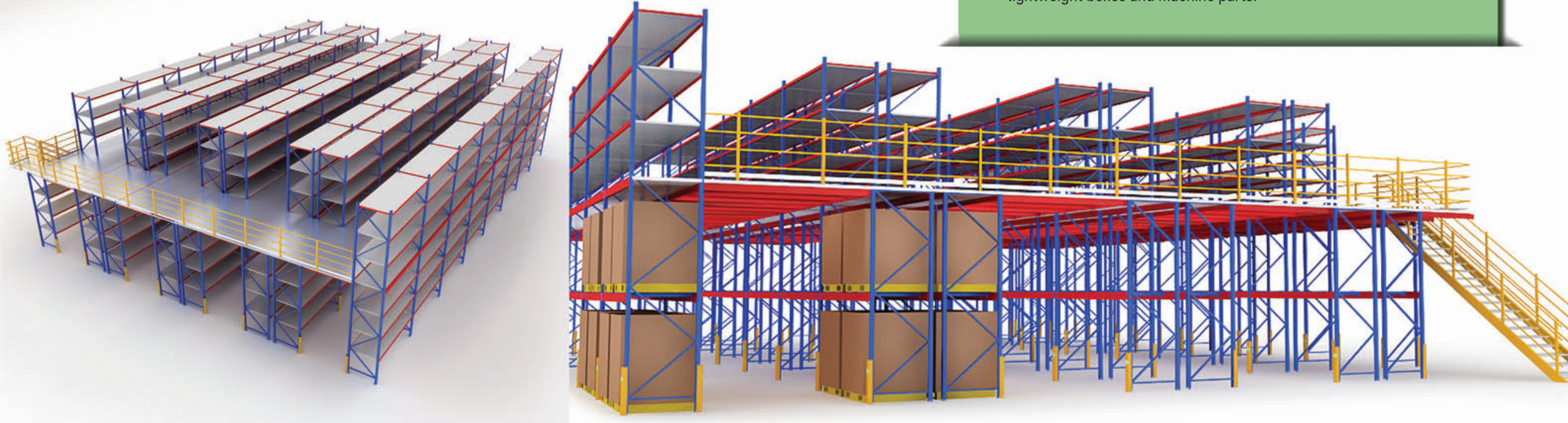
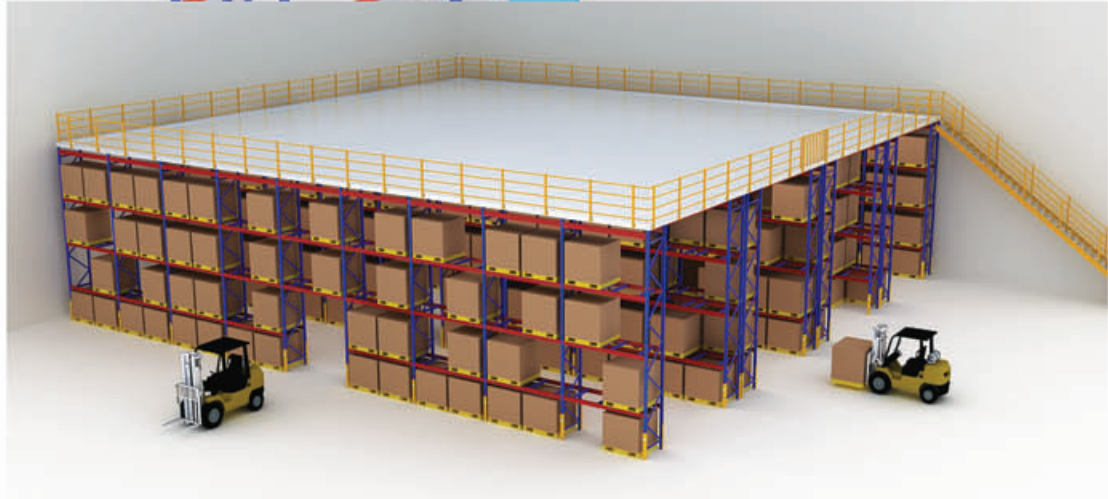
- Various unit configurations are possible.
- Suitable for storing a variety of lightweight and heavy items.
- Ideal for items with relatively high loads, such as medium and lightweight boxes and machine parts.

PALLET RACK STRUCTURE (RACK SUPPORTED MEZZANINES)

The lower level utilizes basic pallet racks to maximize warehouse efficiency by creating a mezzanine floor.

Advantages & Features

- It is possible to install various two-story and three-story mezzanines using both new and existing pallet racks.
- The height of the shelves can be adjusted based on the loading height of the products.
- The fully assembled structure allows for easy installation and dismantling.



TYPES OF MULTI-TIER FRAME STRUCTURES

● Hanger Rack Supported Mezzanines

This multi-tier clothing logistics system stores, sorts, and ships clothing products using hangers. A Trolley Conveyor can be used for inter-floor movement and integration with automated systems such as Sort or DPS.



Double Layer Deck & Safety Net



SPEEDRAIL & TROLLEY

Advantages & Features

- No need for painting due to the use of white pipe.
- Maintains the original shape of the product for excellent quality control.
- Utilizes existing space for the installation of 2 or 3 levels.
- Fast and accurate inventory tracking.
- Easy identification of storage conditions due to product visibility.
- Easy relocation.



TYPES OF MULTI-TIER FLOORS



DECK PLATE

A method that involves installing a deck on top of a sub-beam for use as a floor.

Advantages & Features

- Easy construction and the most cost-effective installation.
- Material thickness is chosen based on the load of the stored items on the multi-tier rack floor.

Disadvantages

- Noise occurs during the movement of transport vehicles.



DECK PLATE - SINGLE

- Excellent strength due to forming and bending processing.
- Hot-dip galvanized treatment (H.G.I).



DECK PLATE - DOUBLE

- A system with excellent strength relative to its weight.
- Hot-dip galvanized treatment (H.G.I).



DECK PLATE - PUNCHING

- Excellent ventilation and suitable for safe walking surfaces.
- Hot-dip galvanized treatment (H.G.I).

TYPES OF MULTI-TIER FLOORS

ENTIRE SUB-DECK INSTALLATION



STEEL PLATE

A method that uses a steel plate installed on top of the sub-deck as a floor.

Advantages & Features

- No noise during transport vehicle movement and convenient walking for workers.
- Easy maintenance (very easy to clean).
- High durability against humidity and most chemicals.
- Material thickness is chosen based on the load of stored items on the multi-tier rack floor.

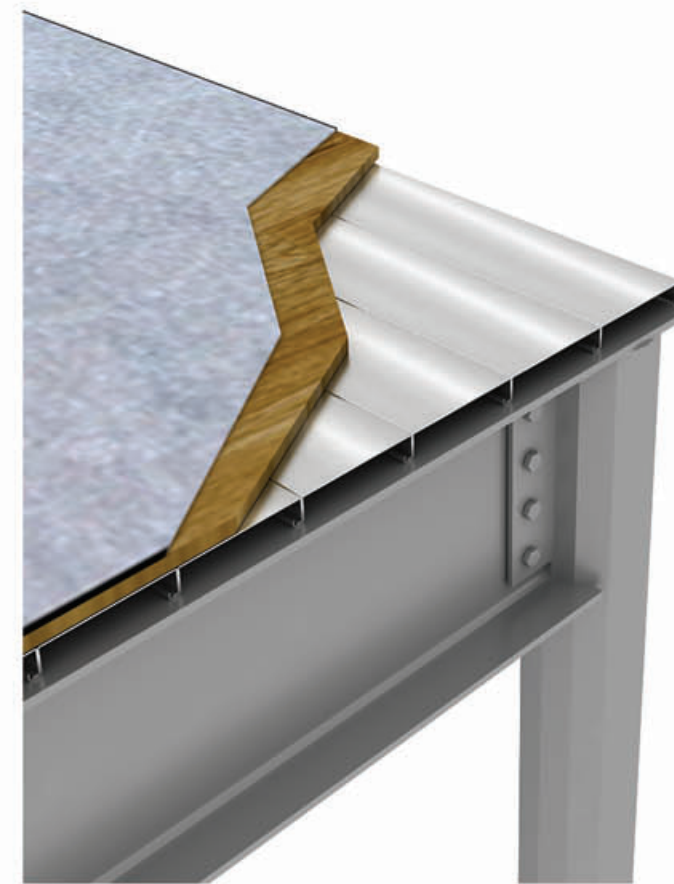
Disadvantages

- Relatively high installation and material costs.

STEEL PLATE INSTALLATION VIEW



SUB-DECK INSTALLATION WITH REGULAR INTERVALS



PLYWOOD + MET FLOOR

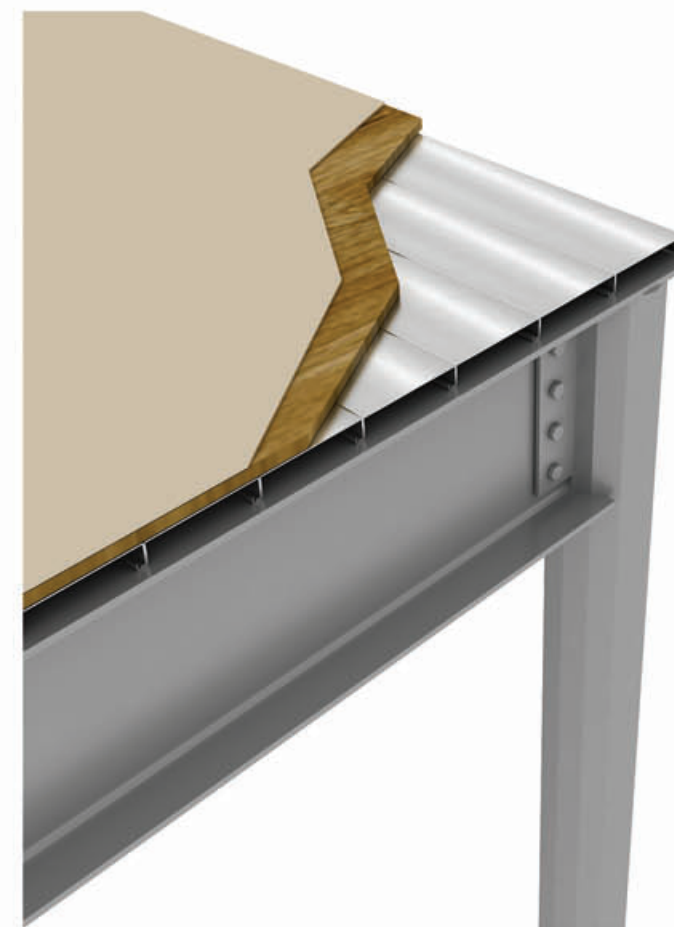
A method that lays plywood on top of the deck plate and installs MET on top for use as a floor.

Advantages & Features

- Reduced noise during transport vehicle movement.
- Easy maintenance (very easy to clean).
- Optimal walking experience for workers.
- Relatively easy installation.
- Various colors and designs available.

Disadvantages

- Less durable compared to steel plates.



PLYWOOD + SAFE DECO FLOOR

A method that lays plywood on top of the deck plate and installs Safe Deco on top for use as a floor.

Advantages & Features

- Reduced noise during transport vehicle movement.
- Strong durability.
- Easy removal of any contamination with cleaning agents or solvents.
- Higher durability compared to MET floors.

Disadvantages

- Relatively higher installation costs compared to MET floors.



OTHER SAFETY EQUIPMENT

● Mezzanine Hand Rail

Installed at a minimum height of 1.2m for safety purposes.

Advantages & Features

- Sturdy installation through welding or bolt assembly.
- Fundamentally strong and safe.
- Easily applicable to standard, square, and circular stairs, and versatile for various railings, making it easy to handle on-site.

● LOADING GATE

- Prevents safety accidents, such as falls, during material transport by workers.
- Sturdy and safe installation through welding or bolt assembly.
- Various product installations possible depending on usage.

LOADING-GATE ROTATING TYPE



LOADING-GATE SLIDE TYPE



LOADING-GATE OPEN TYPE



● LOADING GATE

Advantages & Features

- Sturdy installation through welding or bolt assembly.
- Easily handled on-site due to various applications for railings, including standard, square, and circular stairs.

SAFETY

○ PALLET RACK COLUMN COLLISION PROTECTION DEVICE FOR WAREHOUSES

NEXAGON-901TM

Offers excellent performance for pallet rack protection.

- Excellent absorption and mitigation of external impacts on the front and sides
- Various color options and high visibility
- Applicable to various rack columns
- Innovative improvements possible with additional devices
- Can be installed on each level



The device is easy and simple to install without the use of anchors and fixing bolts due to its strong grip.

- No structural damage caused by forklift collisions breaking concrete anchor bolts
- Easy and simple detachment by hand without tools
- Saves maintenance costs and replacement time



RACK POST PROTECTORS

Examples of installation and collision accidents with existing products

- Difficult installation and maintenance with anchor-type devices
- High installation and maintenance costs
- Items getting caught on rack column protectors during loading and unloading
- Difficulty in immediately identifying collision accident scenes



Forklift collision accidents are important safety issues in logistics warehouses.

Ministry of Land, Infrastructure, and Transport [Warehouse Storage Rack Safety Management Manual]

● Storage Rack Risk Factors

- Accidents can occur when goods fall due to corrosion, damage to the rack from exceeding maximum load capacity, poor loading of goods, or improper rack connections, damaging products or injuring nearby workers.

● Storage rack safety devices (collision protection devices):

- Install protection devices at the bottom of the rack to withstand minor impacts or collisions caused by mobile equipment such as forklifts.

* Pallet rack columns are not designed to be safe from collisions caused by forklifts.

Our NEXAGON-901TM product has been developed to fit internationally recognized rack brands and is continuously being developed to fit most rack sizes.

[Patent Registration No. 10-1449678]

* For more information on different sizes, please visit our company website or contact us.

