PROJECT SNAPSHOT

SOUTHWESTSOLUTIONSGROUP

Healthcare Organization Saves Over 60% of Storage Space With VLMs

SSG designed and installed a Vertical Lift Module storage system for a healthcare organization that needed cleaner packing, better component access, and less floor space tied up in storage. Five VLMs connected warehouse and production areas to a sterile packing space while supporting faster, more accurate picking.

INDUSTRY

Industrial

Cleanroom operations with sterile packing requirements for critical components.

LOCATION

Texas

State-level location provided for this private cleanroom storage project.

FACILITY TYPE

Cleanroom

A sterile order packing area was built between warehouse and production operations.

SOLUTION

Cleanroom VLM Storage System

Five VLMs delivered components into the sterile packing area from both warehouse and production sides.

PRODUCTS USED

Vertical Lift Module Storage System

Five Vertical Lift Modules, guided picking software, visual pick indicators, automated trays, and weight management technology supported cleaner component storage and faster picking.

OPERATIONAL GOAL

Cleaner, Faster Order Fulfillment

The project addressed accuracy, cleanliness, access, employee ergonomics, and floor space use for critical components.

THE PROBLEM

Split Storage Slowed Cleanroom Picking

The facility's order picking process was split between a non-regulated warehouse and a sterile production area, creating extra movement and cleanliness concerns. The healthcare organization also needed a dedicated packing area and a safer way to access light inventory stored on heavy-duty racks.

01

Separated Picking Areas

Order picking was split between a non-regulated warehouse and a sterile production area. This required frequent movement of products between spaces with different temperature, humidity, and cleanliness conditions.

02

No Dedicated Packing Area

The facility did not have a dedicated sterile area for packing orders. That gap created clutter and disorganization around the order fulfillment process.

03

Manual Rack Picking

Light inventory was stored on heavy-duty racks and picked manually. Staff relied on forklifts and ladders, making the process slow, labor-intensive, and harder to access safely.

THE SOLUTION

Vertical Lift Module Storage for Cleanroom Operations

SSG designed and installed a Vertical Lift Module storage system that connected warehouse and production operations to a sterile packing area. Five VLMs used previously unused vertical space to reduce the storage footprint, while guided picking software supported item selection, batch picking, and inventory management. The layout reduced manual rack picking and unnecessary movement between environments.

WHAT WE INSTALLED

Five Vertical Lift Modules for Sterile Packing

SSG constructed a cleanroom between the warehouse and production areas and installed five Vertical Lift Modules. Three VLMs served warehouse-stored components, while two VLMs on the opposite wall brought parts in from the production area.

WHY IT FIT

Vertical Storage Reduced the Floor Space Burden

The VLM approach used previously unused vertical space and replaced a less efficient rack-based process for light inventory. It also supported the need to bring components into a sterile packing environment without relying on frequent movement between separate storage areas.

OPERATIONAL IMPACT

Guided Picking Improved Daily Handling

SSG's guided picking software supported pick-to-light item selection, batch picking for up to 16 orders at the same time, and inventory management using weight management technology. Lasers and LED lights showed item and quantity information to guide operators during picking.

IMPLEMENTATION

Connecting Warehouse and Production With VLM Storage

SSG created a cleanroom between warehouse and production areas and connected both sides with five Vertical Lift Modules. Three VLMs served warehouse-stored components, while two served production-area parts. Our team implemented guided picking software to support item selection, batch picking, and inventory handling within the sterile packing workflow.

01 DISCOVERY & SITE SURVEY

Define Cleanroom Storage and Picking Needs

The project began with the need to improve order fulfillment accuracy, cleanliness, and efficiency for critical components. The storage plan had to account for warehouse components, production-area parts, and sterile packing between the two areas.

02 LAYOUT, POWER & DATA PLAN

Plan VLM Placement on Both Sides of the Cleanroom

The system layout placed three VLMs to serve warehouse-stored components and two VLMs on the opposite wall for production-area parts. SSG planned for guided picking software, pick-to-light guidance, and direct component movement into the cleanroom.

03 SUBMITTALS & APPROVALS

Coordinate Cleanroom and Storage System Scope

SSG coordinated the project around the physical cleanroom construction and the installed VLM system. The scope connected storage equipment, sterile packing space, and software-guided picking into one working process.

04 FABRICATION & DELIVERY

Prepare Five VLMs for Installation

The project included five Vertical Lift Modules with automated trays stacked inside the VLM towers. Delivery and installation planning supported the final layout between the warehouse and production areas.

05 INSTALLATION & TRAINING

Install VLMs and Guided Picking Software

SSG installed the cleanroom system, five VLMs, and guided picking software. The software supported pick-to-light selection, batch picking, and inventory management for the packing process.

06 MAINTENANCE & SUPPORT

Support Future Inventory Changes

The VLM system gave the facility a storage approach that could support future changes in inventory growth or product sizes. Continued support can help maintain system use as operational needs change.

RESULTS

VLM Storage Saves Over 60% of Floor Space

The Vertical Lift Module system saved over 60% of the floor space previously used for storage and increased productivity by up to 300%. It also improved component access, reduced manual handling, and supported sterile order packing with guided picking technology.

PRIMARY OUTCOME

Over 60% Less Floor Space Used for Storage

The VLM system used vertical space to reduce the storage footprint by more than 60%. This gave the facility a denser way to store critical components without continuing to spread light inventory across heavy-duty racks.

WORKFLOW

Components Routed Directly Into the Cleanroom

The new layout reduced movement between different environmental conditions by placing the cleanroom between warehouse and production areas. Components could be accessed from both sides and packed in a sterile area built for that purpose.

ORGANIZATION

Guided Picking Improved Inventory Control

SSG's guided picking software supported pick-to-light selection, batch picking for up to 16 orders at the same time, and inventory management using weight management technology. The system gave operators clearer item and quantity guidance during picking.

LONG-TERM VALUE

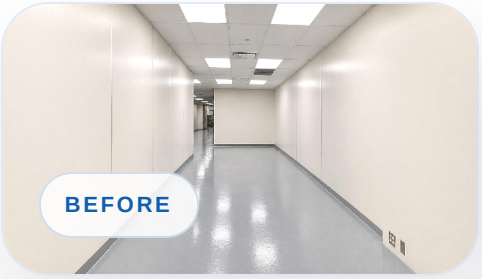
Flexible Storage for Changing Inventory

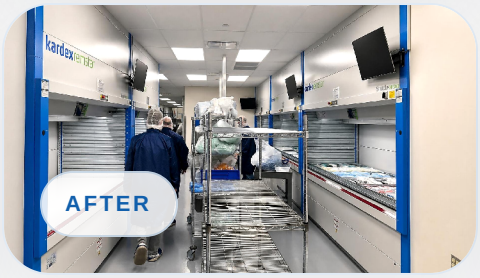
The VLM approach supported future changes in inventory growth or product sizes. It also improved employee ergonomics by presenting items at an optimal height and reducing bending, stretching, and climbing.

PROJECT GALLERY

Vertical Lift Module Storage Before and After

Project images show the original rack storage and the Vertical Lift Module system installed to support cleanroom storage and picking.





READY TO SOLVE A SIMILAR PROBLEM?

Need More Storage Without More Floor Space?

If your facility needs more storage capacity, better access, or cleaner order packing, Southwest Solutions Group can help plan a Vertical Lift Module storage system around your space and workflow.

Our team designs automated storage systems that make critical inventory easier to store, pick, and manage.