



INDUSTRIAL SHELVING

 Cisco-Eagle

shop talk

A STORAGE GUIDE

A buyer's guide to storage efficiency

cisco-eagle.com/shelving

OPTIMIZE YOUR SPACE



ECONOMICAL, SPACE-EFFICIENT WAREHOUSE SHELVING SYSTEMS



The right shelving gives you safe, stable, flexible storage for a broad variety of loads. We help companies specify and lay out their shelving systems that match their loads and operations. We design everything from single rows to parts rooms, warehouses, pick cells and mixed-use applications that maximize space, increase organization and enhance productivity.

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—David, Employee Owner
Customer Service Manager Since 2005



LAYOUT & CONFIGURATION



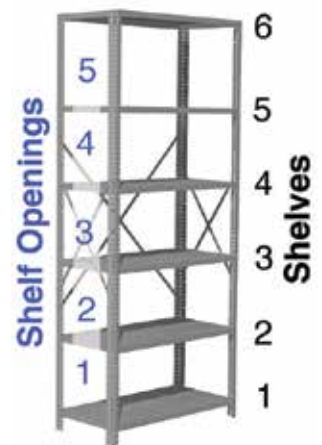
Shelving layout and design factors

Shelving can be laid out in every environment with storage positions ranging from a few units to an entire room or work area.

1. **Determine your storage area:** This is the amount of side-to-side space required for each aisle, plus the front to back dimension of your storage area. If you're doing multiple rows, you should determine aisle widths between rows.
2. **Determine the type of shelving:** See next page for guidance on shelving types. Will you need dividers? Is your load very large or very small? These and other factors will determine your shelving type.
3. **Define the configuration:** Do you want to fully pack an area with shelving, or just create a row or two?
4. **Define your load:** Measure width, depth and height of your load(s). Determine load weight and the number of products to be stored per shelf. You can make a worksheet with multiple load profiles if necessary. These dimensions will help you determine the shelf's spacing, depth and width.
5. **Determine the width (left-to-right dimension) of shelving units:** Units are wider than their shelf width dimension, which measures shelf size. Posts will add inches to each shelving unit, called "growth," which must be taken into account for space planning.
6. **Determine front-to-back dimension:** Choose the size that best fits your product depth. Depending on the shelving type, this runs from as little as 12" to as deep as 48" for standard

sizes. Choose the size that best fits your load depth. Deeper shelves let you store more, but must be accessible.

7. **Determine shelf openings** (the space between shelf levels, measured from top of shelf to top of shelf): To determine shelf opening, consider load height and the amount of space needed to reach into the shelf. A 7-shelf unit has 6 openings.



8. **Determine capacity:** Each shelf will need to bear based on the weight of load and number of products per shelf. Capacity is based on evenly distributed loads. Most shelving units can bear the maximum capacity of all their loaded shelves, but this should be verified for very heavy loads. For very heavy loads, we suggest professional consultation.
9. **Determine height:** Take obstructions like sprinklers and vents into account. If you are storing atop the shelving, leave room between the top of the shelf and the ceiling.
10. **Determine options:** Will you need containers, bin fronts, dividers, drawers, or other options to fully utilize your shelving? Many options are available.





Need assistance?

Cisco-Eagle will assist you in quickly and easily configuring your shelving project from start to finish.

SHELVING TYPES & USES

WHAT SHELVING TYPE WORKS BEST FOR YOU?

While there are dozens and dozens of shelving manufacturers and even more variations of trade names for them, shelving tends to break down into types—rivet, steel and wire, each with many variations, and obvious exceptions, such as mobile aisle or bulk racks. The shelving type needed for a particular application depends on the operation, load and storage needs.

TYPE	APPLICATION FACTORS
RIVET OR BOLTLESS SHELVING 	Economical, heavy duty and easy to install <p>Rivet shelving is strong and fast to assemble with easy access, stability and heavy capacities. It's constructed from a solid steel frame and uses decking (typically 5/8" particle board, wire decks, plywood or solid steel). It comes in very wide and very deep sizes. Use it in industrial, warehousing and storage applications where its heavyweight capacities, size options and toughness allow it to handle most any load. It's the easiest and most economical shelving to install.</p>
STEEL SHELVING WITH CLIPS 	Versatility and adjustability <p>Steel shelving is used in warehouses, offices, tool cribs, etc. It's frequently installed for high-density applications like under-mezzanine parts storage. It's available in open and closed styles. It has exceptional versatility and good capacity ratings, with the most possible options and add-ons. Sway braces don't allow as much accessibility as rivet or wire units. Clip shelving is labor intensive to install, but adjusts faster and easier and can be adapted to many storage needs.</p>
WIRE SHELVING 	Clean appearance and easy accessibility <p>Wire shelving is the most attractive of these types and is used in commercial or "clean" applications more frequently. Like rivet style, it has open construction free of side and back sway braces so it can be accessed from all four sides. It may serve in applications where industrial style shelving is out of place. Wire shelving doesn't impede air flow or sprinkler systems, and does not collect as much dust or debris.</p>
MOBILE AISLE SHELVING SYSTEMS 	High density storage systems <p>Mobile systems eliminate walkway & aisle space, utilizing the full cube. They can be fitted with shelving, racks, modular drawers, cabinets—a wide variety of configurations and options that are available. It can be built with steel, wire, rivet and other materials for a variety of purposes in industrial, office and commercial applications.</p>

RIVET SHELVING

RIVET SHELVING FACTORS

Advantages: economical, high capacity, versatile

- Rivet shelving installs easily, since there is little to no hardware involved, depending on whether or not a center support is used. A mallet is enough to install most rivet shelving applications
- Rivet is the most economical of all shelving types.
- It offers the largest ranges of sizes including very wide and very deep shelving units
- Rivet has the highest capacities – by far it is the best shelving for high-density, bulk and heavy storage applications

Disadvantages: aesthetics, weight, customization

- Rivet shelving won't win any beauty contests. It will never look as good as wire shelving. It's frequently used in industrial settings where looks aren't critical
- It's heavy when you factor in the shelf material, meaning it can cost more to ship it. However, you can choose to buy particle board from a local lumber company rather than shipping it
- While it's customizable in terms of size, rivet shelving lacks the number accessories and options you get with steel shelving. You can put bins on it, but there aren't many options for things like doors or built in dividers



DECK OPTIONS

- **Particle board:** 5/8" underlayment particle board is the recommended minimum. Check load capacity to ensure that your deck material matches the capacity you need.
- **Wire decking:** Specify wire decks to allow air circulation and reduce dust buildup. Allows sprinkler systems to penetrate the shelves and helps support heavier loads.
- **Steel decks:** Built from 22-gauge galvanized steel. Use corrosion-resistant steel decks in cold storage and areas with moisture.



Above: rivet shelving can store long, heavy loads such as pipe and tubes

RECORDS STORAGE



We can help you design and implement a space-efficient records storage solution. A typical room, depending on shelving type, room height, and floor weight, can handle two to five cubic feet of stored records per square foot. If you're on the low end of that scale, well-designed systems can really help you max out your storage. High-density shelving costs less than traditional office shelves, so using the right storage equipment lets you store more records for less.

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Blake, Employee-Owner, Account Executive



Records storage shelving

Optimize records management with shelving units that accommodate standard record storage boxes for efficient use of storage space and easy access to archival information.

- Heights from 60" to 108" (3 to 5 shelves). 15" & 30" depths, 42" & 69" widths. 69" wide models include center supports for higher capacity
- Store from 18 to 100 boxes per shelf
- Capacities up to 1,050 pounds per shelf



Records storage racks

Stores your file boxes safely and securely using high strength pallet rack outfitted with wire decking. Can be configured to almost any height or footprint.

- Use racks for longer term file storage in facilities where warehouse space is available for document archives
- 4-gauge wire decks with 2" x 4" openings provide excellent box support and ventilation
- Standard sizes: 96"h x 96"w and 120"h x 96"w; 36" depths

STEEL SHELVING

STEEL SHELVING FACTORS

Steel shelving is good for operations where you may need to re-arrange your inventory. Clips and hardware-free adjustable shelves are easy to move, expand and reconfigure. Parts rooms and similar areas frequently utilize steel shelving due to its versatility. Also, due to its smooth, painted shelves, steel shelving makes it easy to slide bins in and out for picking and restocking.



Advantages: better adjustability, many options and customization choices

- It's more finely adjustable than rivet shelving through use of compression clips in 1" increments
- Steel shelving is the most customizable with options like built in bin fronts, dividers, doors, modular drawer inserts and more. You can take clip shelving any direction you want to with all the available options
- It's great for high-density applications because shelves can be installed very close together and have low profiles
- It can be used in office settings and not look out of place. Available in many colors for decorative applications

Disadvantages: expense, installation and sizes

- When you take full advantage of its flexibility, metal shelving is more expensive than other types
- Steel shelving is harder to install than other types. Shelves need clips; braces need hardware. Tools are required
- Steel shelving doesn't offer the broad range of size options that rivet shelving has



STEEL SHELVING TYPES

- **Open shelving:** Use open-style shelving for higher-volume items that need fast access. Aids in restocking and is easier to pick from.
- **Closed shelving:** Due to its enclosed sides & back open shelving protects sensitive items from contaminants. It's more attractive than open designs.
- **Bin shelving:** Add plastic or metal bins and adjustable dividers to separate and organize stored items.

MODULAR DRAWER SHELVING



Steel shelving can easily be converted into modular drawer storage for high-density applications. If you're storing lots of bins and boxes on your shelving, you can eliminate them with a modular drawer unit. We offer a range of solutions for this and can provide either new shelving units with modular drawers, or provide drawers for most kinds of existing shelving. Reclaim up to 70% of your floor space by replacing shelving & bins with shelving units and modular drawers.

Retrofit or new shelving

- You can install drawers on most types of steel shelving or buy full shelving/drawer systems
- Install drawers at working height if they contain things that are constantly picked to eliminate bending and stretching
- Store cartons or boxes on the shelves above your drawers and small parts in modular drawers
- Drawers with 400 pounds capacity open to their full extension, giving you visibility into stored items all the way to the very back of the shelf
- Easy to lock, difficult to move for valuable tools and inventory

FLEXI-BIN SMALL PARTS SHELVING



Raise or lower the slide-in shelves while shelves are fully loaded—no tools required. The 12" depth and white back panels keep parts visible and within easy reach. Adjustable bin dividers and small drawers help keep more of your fast-moving inventory organized and close at hand. Particularly for automotive or airplane hangar applications where inventory changes quickly, these adaptable features help you reconfigure your storage to stay organized.



Shelves can be removed and adjusted, even when loaded, providing you with versatile inventory and picking options.



Dividers are easily moved, allowing fast changes due to parts or other inventory fluctuations.

WIRE SHELVING

WIRE SHELVING FACTORS

Advantages: aesthetics, multiple coating types, air circulation, easy assembly and adjustment

- The wire is gleaming, clean, attractive and easy to wipe down. It can serve in food, wash-down or wet applications, depending on the shelving finish
- Dust won't easily gather as on wire frame shelves. In case of a fire it won't obstruct sprinkler systems
- It mounts easily on casters for mobility
- It's as adjustable as steel shelving (1" increments) without the clips or hardware
- There are many specialty configurations available, with tilt shelves, wall mounting, etc.
- Wire shelving can hug a wall and fit a space, but still maintain access to corner areas. It is excellent to run in straight, right-angle or corner installations

Disadvantages: costs, size variations, capacities

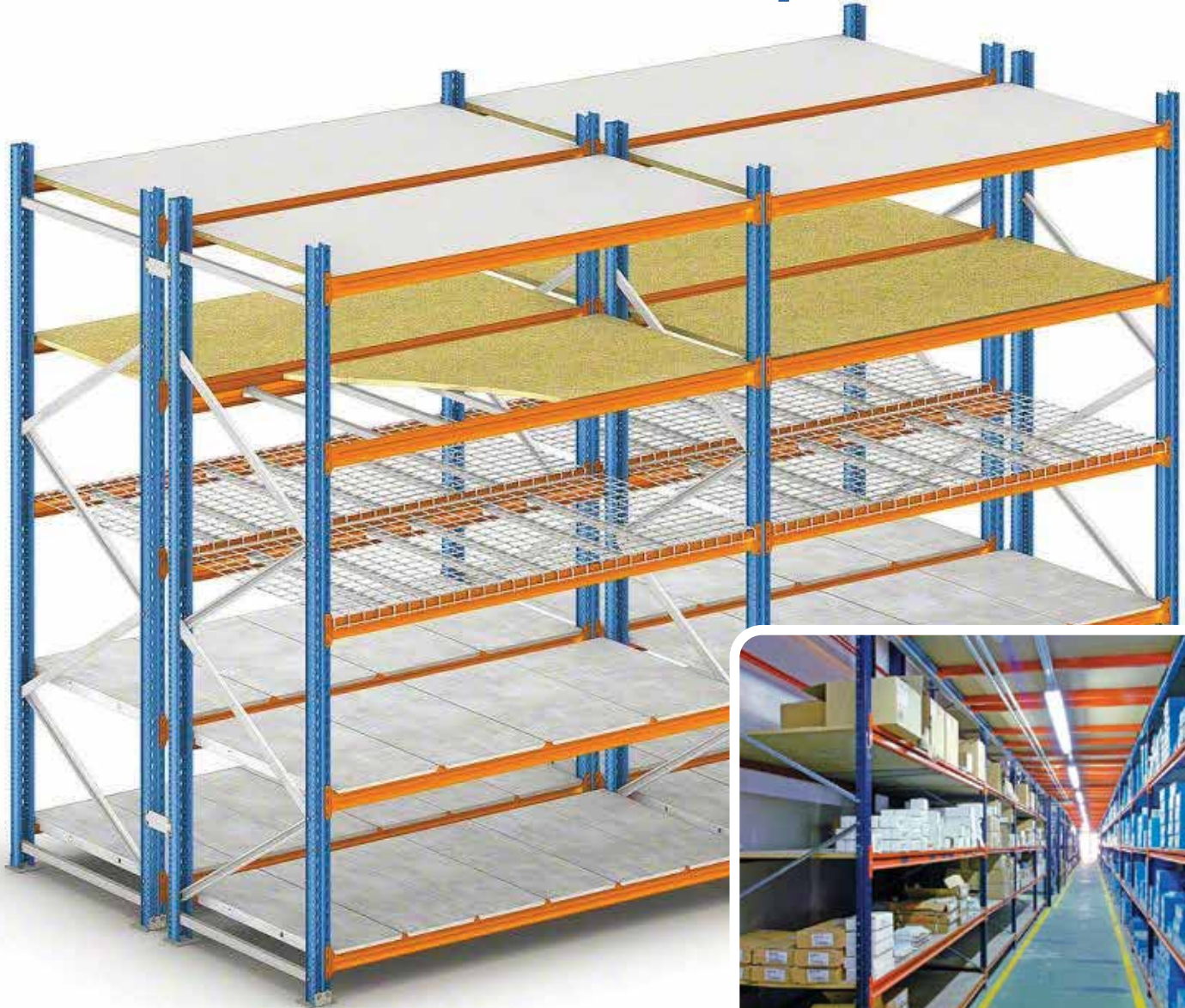
- It's costlier than other shelving types on the average.
- It doesn't offer as many size variations as rivet shelving
- Shelf capacity ranges aren't typically as heavy as steel or rivet shelving systems



Wire shelving is highly durable and attractive. It's used in distribution, storage, commercial, food and retail. Its open shelf design lets air circulate and allows fire sprinklers to work between levels. Because it lets the cold air easily circulate, it's great for cold room and freezer storage. It's easier to clean and maintain because dust hardly accumulates on it. When it's time to move and reconfigure, it's lighter than steel or rivet shelves.



BULK SHELVING/RACK



HIGH CAPACITY SHELVES FOR WAREHOUSING, PICKING & INVENTORY

A step between pallet rack and industrial shelving

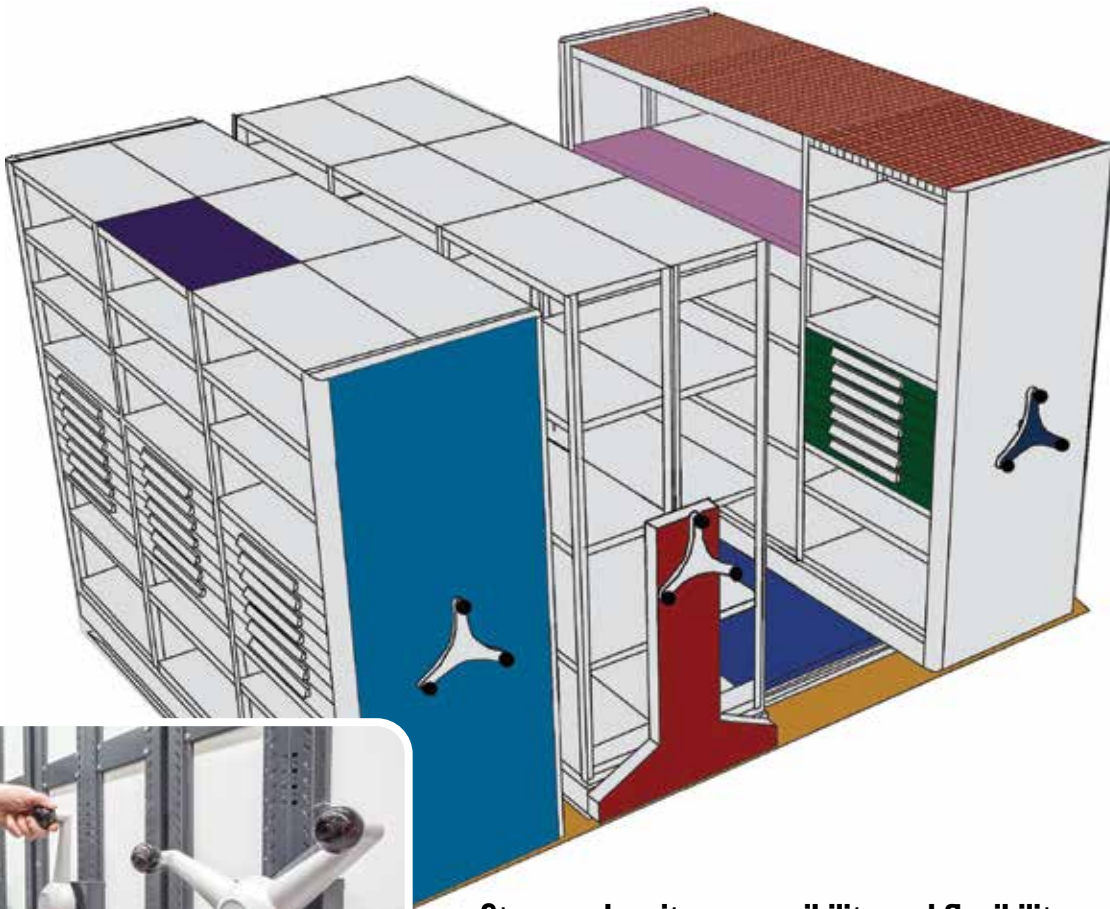
Wide span shelving is ideal for hand-loaded, medium to heavy loads. It's suited for storing small stocks of many different product types for person-to-goods picking. The system is accessed on foot, either at floor level or from elevated walkways fitted between racks on a catwalk or deck-over mezzanine.

We commonly specify this hand-loaded, heavy-duty bulk storage in case or piece picking applications with light stock rotation.

Pallets may not be stored on this rack type.

- **Deck options:** particle board/wood, wire decking, solid steel. Use M-beams used with wire decking; Z-beams are specified for particle board or metal decks
- **Widths:** 48", 60", 72", 84" and 96". **Depths:** 24", 30", 36", 42" and 48". **Heights:** 84", 96", 144"
- **Beams:** built with 14 ga. steel 1-3/16" d. **Posts:** 16 ga. steel
- **Shelves:** adjustable in 2" increments
- **Capacities:** from 1,411 to 3,021 per shelf, based on evenly distributed loads

MOBILE AISLE SHELVING



Storage density, accessibility and flexibility

High-density mobile aisle systems let you collapse the space between rows, freeing existing floor space for other uses by reducing the number of access aisles. The system can double your storage in a smaller footprint. Retrieval is enhanced because workers take fewer steps to access stored items. Shelving and modular drawer components can be reconfigured as space and storage priorities change. Great for archival storage, manufacturing parts & supplies, maintenance, pharmacy, weapons racks, R&D, medical records, tool rooms and more.

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Depending on your application, you can move aisles by hand or mechanically.

Mechanical systems move heavy loads up to 10,000 pounds—it's like a car's power steering. Manual systems use a crank and let a single easily person move up to a thousand pounds smoothly and uniformly. Whether you're moving lightweight boxes or heavy dies, mobile aisle will work for you.



Kevin, Employee-Owner since 2020
Account Executive



SPECIALTY SHELVING

ROTABINS BIN SYSTEMS: HIGH-ACCESS, HIGH-DENSITY PARTS SYSTEMS



Never worry about parts being lost in the shadowy back of a shelf or bin

Compared to rectangular shelving, Rotabins save space—lots of space—and also save work. Pick more parts faster while standing in one spot than from bins, shelving or even flow rack. Parts are easier to see and reach and order pickers walk less because they can rotate the shelves to suit them. This reduces fatigue and the errors that accompany it. Ideal for production areas, maintenance rooms, warehouses, parts counters, hardware stores or home centers. Rotabins fit on or under counters, in corners or in rows.



ALUMINUM SHELVING FOR FOOD/COLD APPLICATIONS

Corrosion and rust proof, aluminum shelving with adjustable shelves is perfect for washdown and food handling environments. It's lighter than steel but strong and resilient. This NSF certified shelving approved for freezers, cold storage displays, packaging and storage areas, holds up to 6 half-barrels on easy-clean t-bar shelves made of sealed square tube aluminum. Shelves keep goods off the floor and provide sufficient air flow through shelving to keeps goods at even temperatures throughout. Shelves allow ventilation for appropriate air flow and temperature regulation. Use to store half-barrels, buckets, bins, large cases and boxes.

CANNABIS & VERTICAL FARMING SHELVES

Corner drain shelving

Corner drains and formed dimples effectively manage runoff to maximize your water use and the flow of nutrients. Top frame accepts the modern lighting systems. 1.5" shelf adjustment.



Trough shelving

The adjustable shelves feature 2" front troughs with open ends to accommodate PVC drains. Optional caps let you add drainage tubes directly to the trough. The antimicrobial finish helps you manage threats to your crops. Adjusts on 1.5" centers for versatility in any grow operation. Accepts modern lighting systems.



Left: optional drain trays can be utilized on both types of shelving. Setting plants on drain trays gives them a slightly raised surface to allow for proper drainage. Made from antimicrobial, anti-fungal HDPE. One side is smooth and one side textured to give plants traction as needed.

ANGLED PICKING SHELVES

ELIMINATE PICKING OPERATION DEAD ZONES



Increase picking rates

Easily-mounted pick shelves deliver products to pickers in a more ergonomic manner. They're angled to provide visibility and accessibility at the pick point. Use in racks, where adjustable shelves and pick trays provide the most durable and accessible pick points for workers.

Specifications

- Depths from 18" - 60"
- Widths from 30" - 120" (using multi-pane designs in shelf configurations). Maximum width for Flow Cell is 96"
- Galvanized steel construction. Wire mesh in 24" depths
- 50 pounds per square foot shelf capacity



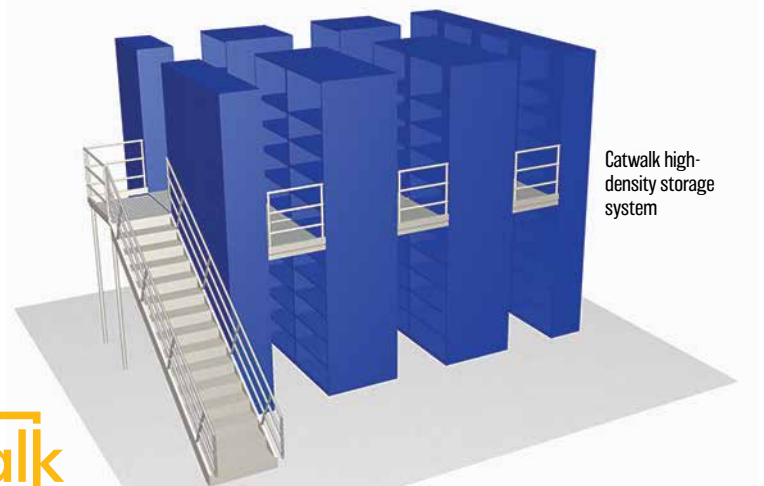
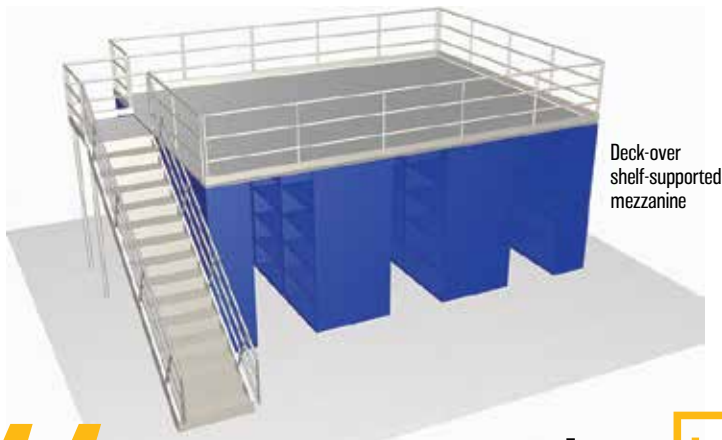
Flow cell racks with angle shelves have unit capacities up to 3,000 pounds and can be configured with wheels, knuckle shelves and more



SHELVING MEZZANINES



When you need to organize parts, tools or inventory in concentrated space, shelf-supported mezzanines are an ideal solution. Shelf-supported mezzanines pack more parts, bins and other stored items into a small area by using the vertical cube—and they make accessing those parts easier and more organized.



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These mezzanines support platforms with shelving and pack in storage positions for parts, inventory and more. **Deck-overs** top shelving with platforms that host offices, work cells or whatever else you need. **Catwalk systems** extend the shelves above the platform for even more storage packed over walkways. Pickers can work on the floor or on top of the mezzanine for easy access and organization.

—Mike, Employee Owner
Account Executive

SHELVING SPECIFICATION

About you

Name: _____

Company: _____

Phone: _____

Email: _____



Shelving type:

- ☐ Rivet/boltless ☐ Steel/clip ☐ Wire
☐ Records storage ☐ Specialty ☐ Bulk rack
☐ Rotabins ☐ Vertical cultivation ☐ Other

Load definitions

Load dimensions (in inches; add separately if more is needed)

Load Description	Width	Depth	Height	Weight

Other load details : _____

Shelving unit size (use as many as needed, in inches)

#Shelves	W	D	H	Cap.	Qty.

Note: capacity is per shelf, evenly distributed.

Describe your application

- ☐ Single or multiple units (quantity): _____
☐ Single row (length): _____
☐ Multiple rows (row length): _____
☐ Fill room; (W): _____ (L): _____ (H): _____

Note that (H) dimension = ceiling height

Application notes



Need help with your shelving? Contact us today for fast, expert help. With five decades of shelving layout, design & specification experience, we'll help you get it right. We can walk you through the process and make sure that you get exactly the right shelving at the right price. Send this form or call us toll-free today.

Tina, Employee-Owner Since 2012
Sales Support & Service

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