

PENCO

MATERIAL HANDLING

PENCO'S MATERIAL HANDLING CATALOG



FEATURING:

CLIPPER
SHELVING

RivetRite®

Erectomatic®

Wide Span

Pallet Rack

ABOUT PENCO

The need for storage products is universal and Penco has a broad selection of solutions to fill that need. In doing so, Penco has become one of America's largest and most trusted suppliers of storage and work-area products. With state-of-the-art US manufacturing facilities and QuickShip Distribution Centers strategically located throughout the United States and Canada, Penco is positioned to best serve your needs.

Market sectors served by Penco include educational, healthcare, and government facilities, as well as offices, manufacturing companies, distribution warehouses, retail outlets, sports arenas and community parks.

Shelving and pallet rack products are popular with warehousing and manufacturing applications, ranging from a few units to multi-level and high rise applications.

Lockers are widely used in educational facilities, fitness centers, healthcare, military, emergency response, commercial and industrial locations.



All products manufactured by Penco Products are GREENGUARD Gold Certified through UL Environment's GREENGUARD Certification Program. This certification signifies that Penco's products are in compliance with the stringent chemical emissions guidelines set by UL Environment.

Accredited courses are available to design professionals and fulfill credit requirements for AIA, GBCI, IDCEC. Contact a Penco Sales Manager for more information.

PENCO'S HISTORY

In 1869, a man named L. Lewis Sagendorph fulfilled his ambition to begin his own company that would produce the finest metal products in America. He called his fledgling business the Penn Metal Corporation of Pennsylvania, and began by making steel culvert pipe on Oregon Avenue in South Philadelphia.



Headquarters in Greenville, NC

Over the years, Penn Metal's product lines broadened to include lockers, shelving and even aircraft landing mats. A reputation for quality fabrication spread, and the company's influence became nationwide. In the 1950's, the name was shortened to Penco Products and the plant and offices were expanded to a modern facility in Oaks, Pennsylvania, near Valley Forge.

In 2001, the manufacturing facility was moved from Oaks to a 475,000 square foot manufacturing facility in Hamilton, North Carolina, allowing significant room for expansion. In 2013, the corporate headquarters was moved from Skippack, Pennsylvania to Greenville, North Carolina.

CUSTOMER SERVICE

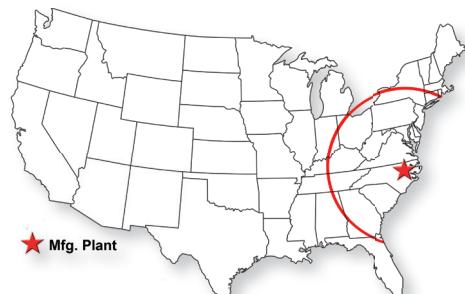
pencoproducts.com | 800.562.1000

Penco's Customer Service staff is a customer friendly, knowledgeable team that is dedicated to excellence in service delivery and communication. The team is based at Penco's Greenville, NC headquarters.

Our goal is to provide professional, courteous, timely and accurate service to every customer in a fair, consistent and accessible manner. Penco's distributor partners and customers are our number one priority and focus.

LEEDS Environmental Information

- Based upon the most recent information from our source mills, the recycled content of our steel lockers can range from 25% to over 50%. Because the percentage of recycled content may vary from project to project based on a number of variables, please contact our offices for detailed information on your specific requirement.
- Powder coating drastically reduces waste through high efficiency application & recovery methods.
- Penco's powder coat paint contains no solvents and as a result releases no Volatile Organic Compounds (VOC's) normally associated with wet paint processes.
- Our packaging contains at least 20% post-consumer recycled content.
- Approximately 34% of the U.S. population lives within a 500 mile radius of our manufacturing facility, requiring less fuel to ship our products to many destinations.



★ Mfg. Plant

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QUICKSHIP Locker Program

Penco Products leads the industry with its comprehensive QuickShip program. Penco's QuickShip Distribution Centers have been strategically located throughout North America to best serve customer needs with prompt delivery of products from the shortest distance possible. Penco's QuickShip program saves time, delivery cost and energy, thus reducing the impact on our environment.

Visit pencoproducts.com/penco-programs/quickship for a listing of which products are available at each warehouse location shown.

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QUICKSHIP LOCATIONS



- Fort Wayne, IN
- Memphis, TN
- New Castle, DE
- Paramount, CA
- Passaic, NJ
- West Jordan, UT

Introduction

Clipper Hi-Performance Shelving Systems

At the heart of the Clipper Shelving System is the ingenious Penco Clipper Clip. It is easily installed, holds the shelf firmly in place, can be repositioned at any time, and actually helps make the shelving more rigid.

Clipper Shelving features Hi-Performance® Box Beam Shelves, which offer an exceptional strength to weight ratio. Clipper Shelving offers a wide variety of sizes and capacities too. This gives you the flexibility to provide top quality storage for a simple back room area up to a sophisticated multi-level or high-rise application.

How to Order Clipper Units

Virtually all shelving storage needs may be satisfied by ordering standard shelving units as illustrated on the following pages. These units are shipped KD with all required components, shelf clips, hardware and assembly instructions.

Choice of Post Arrangements

Penco standard shelving units employ box posts at front and offset angle posts at rear for each section. Other post assembly plans may be employed using offset angle posts at front and rear, when ordered as individual component parts.

Growth Dimension Considerations

To determine the overall dimension of a continuous row of shelving employing box and angle posts, refer to detail drawings on this page.

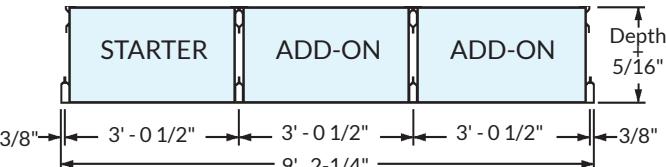
To order standard 87" high units:

1. Determine the shelving type desired (open, closed or ledge)
2. Determine shelf width and depth.
3. Order by catalog number as many basic units as required to form a continuous row of shelving.
4. Order by catalog number one ending kit to end each row.
5. Select the appropriate accessories for your application.

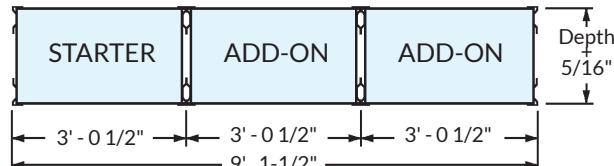
Growth with
Penco
Hi-Performance®
Shelves



Box Posts Front, Angle Posts Rear



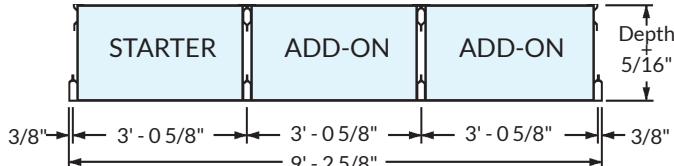
Angle Posts Front & Rear



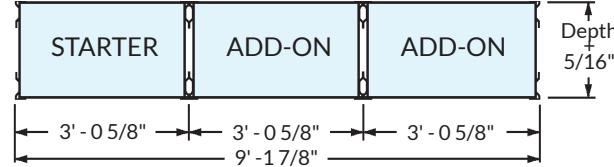
Growth with
Clipper
Conventional
Flange Shelves



Box Posts Front, Angle Posts Rear



Angle Posts Front & Rear



All dimensions are
theoretical subject to
manufacturing tolerances.

Clipper Growth Chart

(With box posts at front, angle posts at rear)

| No. of Units In a Row | 36" Wide Sections | 42" Wide Sections | 48" Wide Sections |
|-----------------------|-------------------|-------------------|-------------------|
| 1 | 3' 1-3/8" | 3' 7-3/8" | 4' 1-3/8" |
| 2 | 6' 2" | 7' 2" | 8' 2" |
| 3 | 9' 2-5/8" | 10' 8-5/8" | 12' 2-5/8" |
| 4 | 12' 3-1/4" | 14' 3-1/4" | 16' 3-1/4" |
| 5 | 15' 3-7/8" | 17' 9-7/8" | 20' 3-7/8" |
| 6 | 18' 4-1/2" | 21' 4-1/2" | 24' 4-1/2" |
| 7 | 21' 5-1/8" | 24' 11-1/8" | 28' 5-1/8" |
| 8 | 24' 5-3/4" | 28' 5-3/4" | 32' 5-3/4" |
| 9 | 27' 6-3/8" | 32' 0-3/8" | 36' 6-3/8" |
| 10 | 30' 7" | 35' 7" | 40' 7" |
| 11 | 33' 7-5/8" | 39' 1-5/8" | 44' 7-5/8" |
| 12 | 36' 8-1/4" | 42' 8-1/4" | 48' 8-1/4" |
| 13 | 39' 8-7/8" | 46' 2-7/8" | 52' 8-7/8" |
| 14 | 42' 9-1/2" | 49' 9-1/2" | 56' 9-1/2" |
| 15 | 45' 10-1/8" | 53' 4-1/8" | 60' 10-1/8" |
| 16 | 48' 10-3/4" | 56' 10-3/4" | 64' 10-3/4" |
| 17 | 51' 11-3/8" | 60' 5-3/8" | 68' 11-3/8" |
| 18 | 55' 0" | 64' 0" | 73' 0" |
| 19 | 58' 0-5/8" | 67' 6-5/8" | 77' 0-5/8" |
| 20 | 61' 1-1/4" | 71' 1-1/4" | 81' 1-1/4" |

Open Shelving Units

Open Type Shelving

Open type shelving is the basic and most economical shelving design for general purpose use. Backs and sides are open, except that sections are stabilized by sway braces.

For convenient ordering, 36 different open configurations of Basic Units are shown below with their respective End Kits. The completed units below utilize Heavy Duty Hi-Performance® Shelves with box posts at front and offset angle posts at rear. Label holders are not included. Refer to page 4 for ordering instructions.

Many other configurations can be designed from the component parts and accessories on the following pages.

Basic Unit

- 1 Box Post
- 2 Angle Posts
- 1 Set Side Braces
- 1 Set Back Sway Braces
- Shelves
- Hardware

End Kit

- 1 Box Post
- 1 Set Side Braces
- Hardware



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Clipper Open Units

| Unit Width | Unit Depth | Unit Height | Capacity Per Shelf** | 5 Shelf Basic Cat. No. | 6 Shelf Basic Cat. No. | 7 Shelf Basic Cat. No. | 8 Shelf Basic Cat. No. | End Kit Cat. No. |
|----------------|------------|-------------|----------------------|------------------------|------------------------|------------------------|------------------------|------------------|
| 36" Wide Units | 12" | 87" | 800 lb | 1H7015 | 1H7016 | 1H7017 | 1H7018 | 101287 |
| | 18" | 87" | 850 lb | 1H7025 | 1H7026 | 1H7027 | 1H7028 | 101887 |
| | 24" | 87" | 800 lb | 1H7035 | 1H7036 | 1H7037 | 1H7038 | 102487 |
| 42" Wide Units | 12" | 87" | 600 lb | 1H7045 | 1H7046 | 1H7047 | 1H7048 | 101287 |
| | 18" | 87" | 600 lb | 1H7055 | 1H7056 | 1H7057 | 1H7058 | 101887 |
| | 24" | 87" | 600 lb | 1H7065 | 1H7066 | 1H7067 | 1H7068 | 102487 |
| 48" Wide Units | 12" | 87" | 500 lb | 1H7075 | 1H7076 | 1H7077 | 1H7078 | 101287 |
| | 18" | 87" | 500 lb | 1H7085 | 1H7086 | 1H7087 | 1H7088 | 101887 |
| | 24" | 87" | 530 lb | 1H7095 | 1H7096 | 1H7097 | 1H7098 | 102487 |

** For Evenly Distributed Load

Clipper® Shelving

Closed Shelving Units



Closed Type Shelving

Closed type shelving units are covered on three sides with steel panels to provide stability, protection and to promote cleanliness of stored items. Optional locking doors may be added for greater security.

The 36 configurations shown below with their respective End Kits employ Heavy Duty Hi-Performance® shelves with box posts at the front and offset angle posts at the rear. **Label holders and closed front bases are not included and must be ordered separately.**

Refer to page 4 for ordering instructions. Many other configurations can be designed from the component parts and accessories on the following pages.

Basic Unit



- 1 Box Post
- 2 Angle Posts
- 1 Side Panel
- 1 Back Panel
- Shelves
- Hardware

End Kit



- 1 Box Post
- 1 Side Panel
- Hardware

Clipper Closed Units

| Unit Width | Unit Depth | Unit Height | Capacity Per Shelf** | 5 Shelf Basic Cat. No. | 6 Shelf Basic Cat. No. | 7 Shelf Basic Cat. No. | 8 Shelf Basic Cat. No. | End Kit Cat. No. |
|----------------|------------|-------------|----------------------|------------------------|------------------------|------------------------|------------------------|------------------|
| 36" Wide Units | 12" | 87" | 800 lb | 1H8015 | 1H8016 | 1H8017 | 1H8018 | 1C1287 |
| | 18" | 87" | 850 lb | 1H8025 | 1H8026 | 1H8027 | 1H8028 | 1C1887 |
| | 24" | 87" | 800 lb | 1H8035 | 1H8036 | 1H8037 | 1H8038 | 1C2487 |
| 42" Wide Units | 12" | 87" | 600 lb | 1H8045 | 1H8046 | 1H8047 | 1H8048 | 1C1287 |
| | 18" | 87" | 600 lb | 1H8055 | 1H8056 | 1H8057 | 1H8058 | 1C1887 |
| | 24" | 87" | 600 lb | 1H8065 | 1H8066 | 1H8067 | 1H8068 | 1C2487 |
| 48" Wide Units | 12" | 87" | 500 lb | 1H8075 | 1H8076 | 1H8077 | 1H8078 | 1C1287 |
| | 18" | 87" | 500 lb | 1H8085 | 1H8086 | 1H8087 | 1H8088 | 1C1887 |
| | 24" | 87" | 530 lb | 1H8095 | 1H8096 | 1H8097 | 1H8098 | 1C2487 |

Front Bases must be ordered separately.

Clipper® Shelving



36" Wide Bin Units

Clipper Shelving Bin Units are closed units with Heavy Duty Hi-Performance shelves, in various quantities, plus dividers and bin fronts as required. Offset angle posts are used at the rear of each unit, and box posts at the front. Order one End Kit to finish a unit or row of units. **Front bases are included. Label holders must be ordered separately.** This and the following page catalog 36" & 48" wide units, but many other configurations are possible by ordering component parts.

NOTE: Bin widths are nominal. They are measured from the hole centers on the shelves, not the vertical bead of the dividers.

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| 36" Wide Clipper Bin Units | | | | | | |
|----------------------------|-------------|---|---|-------------------------------|--|---------|
| Unit Depth | Unit Height | 9 Openings 8 @ 36" x 9" 1 @ 36" x 12" | 13 Openings 12 @ 36" x 6" 1 @ 36" x 12" | 21 Openings 21 @ 12" x 12" | 21 Openings 21 @ 12" x 12" 7 - 3" Bin Fronts | End Kit |
| 12" | 87" | 1H6109 | 1H6113 | 1H6121 | 1H6621 | 1C1287 |
| 18" | 87" | 1H6209 | 1H6213 | 1H6221 | 1H6521 | 1C1887 |
| 24" | 87" | 1H6309 | 1H6313 | 1H6321 | 1H6421 | 1C2487 |

| 36" Wide Clipper Bin Units | | | | | | |
|----------------------------|-------------|---|--|--|---|---------|
| Unit Depth | Unit Height | 29 Openings 16 @ 9" x 9" 4 @ 9" x 12" 9 @ 12" x 12" 8 - 3" Bin Fronts | 35 Openings 32 @ 9" x 9" 3 @ 12" x 12" | 37 Openings 24 @ 9" x 6" 4 @ 9" x 12" 9 @ 12" x 12" | 43 Openings 24 @ 6" x 6" 9 @ 12" x 9" 4 @ 9" x 9" 6 @ 12" x 12" | End Kit |
| 12" | 87" | 1H6129 | 1H6135 | 1H6137 | 1H6143 | 1C1287 |
| 18" | 87" | 1H6229 | 1H6235 | 1H6237 | 1H6243 | 1C1887 |
| 24" | 87" | 1H6329 | 1H6335 | 1H6337 | 1H6343 | 1C2487 |

Clipper® Shelving

48" Wide Bin Units

48" Wide Clipper Bin Units

| | | 9 Openings 8 @ 48" x 9" 1 @ 48" x 12" | 13 Openings 12 @ 48" x 6" 1 @ 48" x 12" | 28 Openings 28 @ 12" x 12" | 28 Openings 28 @ 12" x 12" 7 - 3" Bin Fronts | End Kit |
|------------|-------------|---|---|-------------------------------|--|---------------------|
| Unit Depth | Unit Height | 9 Openings Cat. No. | 13 Openings Cat. No. | 28 Openings Cat. No. | 28 Openings 3" Bin Fronts Cat. No. | End Kit Cat. No. |
| 12" | 87" | 1H6409 | 1H6413 | 1H6428 | 1H6328 | 1C1287 |
| 18" | 87" | 1H6509 | 1H6513 | 1H6528 | 1H6228 | 1C1887 |
| 24" | 87" | 1H6609 | 1H6613 | 1H6628 | 1H6128 | 1C2487 |

48" Wide Clipper Bin Units

| | | 42 Openings 16 @ 7-1/2" x 9" 8 @ 9" x 9" 4 @ 7-1/2" x 12" 2 @ 9" x 12" 12 @ 12" x 12" 8 - 3" Bin Fronts | 52 Openings 32 @ 7-1/2" x 9" 16 @ 9" x 9" 4 @ 12" x 12" | 54 Openings 24 @ 7-1/2" x 6" 12 @ 9" x 6" 4 @ 7-1/2" x 12" 2 @ 9" x 12" 12 @ 12" x 12" | 58 Openings 32 @ 6" x 6" 12 @ 12" x 9" 4 @ 7-1/2" x 9" 2 @ 9" x 9" 8 @ 12" x 12" | End Kit |
|------------|-------------|---|--|---|---|---------------------|
| Unit Depth | Unit Height | 42 Openings 3" Bin Fronts Cat. No. | 52 Openings Cat. No. | 54 Openings Cat. No. | 58 Openings Cat. No. | End Kit Cat. No. |
| 12" | 87" | 1H6442 | 1H6452 | 1H6454 | 1H6458 | 1C1287 |
| 18" | 87" | 1H6542 | 1H6552 | 1H6554 | 1H6558 | 1C1887 |
| 24" | 87" | 1H6642 | 1H6652 | 1H6654 | 1H6658 | 1C2487 |



Clipper® Shelving

Ledge and Counter Units



Ledge Units

Ledge type shelving is recommended where greater depth of the lower compartment is desired, and a convenient working height surface ledge is required. Seven Heavy Duty Hi-Performance® shelves are included plus a heavy gauge ledge top with a reinforcing pan welded to the bottom for extra strength. This provides a total of seven openings.

The units are available in open or closed construction and may be equipped with standard shelving accessories, including locking doors at the top and bottom. Units are 36" wide, 12" deep at the top, and 24" deep at the bottom. Overall height is 87"; the ledge top is 39" high.

The End Kit includes 2 ledge top finishing strips to provide a finished appearance at the sides of the ledge top. Order one End Kit to finish each single unit, or row of units.

Counter Units

Penco steel counters present an extremely clean, classic appearance for over the counter or stock-room use. A smooth, extra heavy gauge reinforced counter top provides an excellent work surface. Three standard Heavy Duty Hi-Performance® Clipper shelves, adjustable on 1" centers, are used below. Units have box posts at all four corners and closed front bases.

The top is designed to butt against adjacent tops when more than one unit is used in a row for a continuous flush surface. One End Kit is required for each single unit, or to end a row of units. Two counter top finishing strips are included with each End Kit, to extend the top beyond the end and provide a finished appearance.

Counter Tops and Fronts may be purchased as separate components. Note that they may be used only when box posts are used at front and rear of unit.



Open Unit
with End Kit



Closed Unit
with End Kit

Front Bases are included with Closed Ledge Units.

Ledge Units

| Unit Width | Unit Depth | Unit Height | Unit Cat. No. | End Kit Cat. No. |
|-------------------|---------------------------|---------------------------|---------------|------------------|
| Open Type Units | | | | |
| 36" | 12" (Top) 24" (Bottom) | 48" (Top) 39" (Bottom) | 1H432L | 19433E |
| Closed Type Units | | | | |
| 36" | 12" (Top) 24" (Bottom) | 48" (Top) 39" (Bottom) | 1H434L | 19435E |



Front and rear views of 2 1H122C Basic Units plus 1 19125E End Kit

Counter Units

| Unit Width | Unit Depth | Unit Height | Unit Cat. No. | End Kit Cat. No. |
|---------------------|------------|-------------|---------------|------------------|
| Complete Units | | | | |
| 36" | 24" | 39" | 1H122C | 19125E |
| 42" | 24" | 39" | 1H123C | 19125E |
| 48" | 24" | 39" | 1H124C | 19125E |
| Counter Tops Only | | | | |
| 36" | 24" | - | 13670H | - |
| 42" | 24" | - | 13680H | - |
| 48" | 24" | - | 13690H | - |
| Counter Fronts Only | | | | |
| 36" | - | 39" | 13870H | - |
| 42" | - | 39" | 13880H | - |
| 48" | - | 39" | 13890H | - |

Clipper® Shelving

Special Purpose Units

Artwork Shelving

This efficient unit serves the need for storing, organizing and protecting artwork. It is a basic piece of storage equipment wherever artwork is maintained. The unit has 18 openings, each with a 26-3/4" clear vertical opening. The unit includes closed back, sides and base, four Hi-Performance® shelves and 15 dividers. Dividers adjust easily on 1-1/2" centers. Can be accessorized with lockable doors. Order End Kit to finish each unit or row.



Artwork Shelving

| Unit Width | Unit Depth | Unit Height | No. of Shelves | No. of Dividers | Unit Cat. No. | End Kit Cat. No. |
|------------|------------|-------------|----------------|-----------------|---------------|------------------|
| 36" | 24" | 87" | 4 | 15 | 1H6700 | 1C2487 |

Open Shelf Filing Record Storage

A space-saving efficient unit designed for filing a variety of records in a safe, organized, easily accessible system. Special tabbed dividers insert into the shelf and special back bracket for divider stability. They adjust easily on alternate 1" and 2" centers. The unit features closed sides and base. A special bracket at each shelf level is pierced to accept one tab of the divider. Order End Kit to finish a unit or a row.



Open Shelf Filing Record Storage

| Unit Width | Unit Depth | Unit Height | No. of Shelves | No. of Dividers | Unit Cat. No. | End Kit Cat. No. |
|------------|------------|-------------|----------------|-----------------|---------------|------------------|
| 36" | 12" | 87" | 8 | 35 | 176709 | 1C1287 |

X-Ray Shelving

An efficient, practical storage unit with a broad application throughout the healthcare industry for the protective storage of X-ray. The unit features Heavy Duty Hi-Performance shelves, closed back, sides, and base. 25 dividers are furnished in two sizes which adjust easily on 1-1/2" centers. The dividers attach to the shelf with strong plastic buttons. Order End Kit to finish each unit or row.



Refer to opening sizes in chart below.

Plan Shelving

Designed with the engineer, draftsman or architect in mind, this unit allows plans and drawings to be stored either rolled or flat. This unit provides 64 openings 6" x 36" x 6" for rolled storage and 9 openings 48" x 36" x 4" for flat storage. Unit includes Heavy Duty Hi-Performance shelves, closed back, sides and base. Can be accessorized with lockable doors. Order End Kit to finish each row.



X-Ray Shelving

| Unit Width | Unit Depth | Unit Height | No. of Shelves | No. of Dividers | Unit Cat. No. | End Kit Cat. No. |
|------------|------------|-------------|----------------|-----------------|---------------|------------------|
| 36" | 18" | 87" | 6 | 25 | 1H6705 | 1C1887 |

Divider Quantities

| Unit Depth | Divider Height | No. of Dividers | Clear Opening Height |
|------------|----------------|-----------------|----------------------|
| 18" | 16" | 15 | 14-13/16" |
| 18" | 18" | 10 | 16-13/16" |

Plan Shelving

| Unit Width | Unit Depth | Unit Height | No. of Shelves | No. of Dividers | Unit Cat. No. | End Kit Cat. No. |
|------------|------------|-------------|----------------|-----------------|---------------|------------------|
| 48" | 36" | 87" | 18 | 56 | 1H6659 | 1C3687 |

Clipper® Shelving



Shelving Components

Box Posts

A high strength roll formed tubular box section usually used at unit fronts; permits full access to shelf width. Designed to be used in common between units, or at row ends. Permits vertical shelf adjustment on 1" centers using clips or nuts & bolts. Internal flange is punched on 3" centers to accept side sway bracing or closed side panels.



Box Posts

| Unit Height | 14 Gauge Cat. No. | 16 Gauge Cat. No. |
|-------------|-------------------|-------------------|
| 39" | 1B4039C | - |
| 48" | 1B4048C | - |
| 75" | 1B4075C | - |
| 87" | 1B4087C | 1B6087C |
| 99" | 1B4099C | - |
| 123" | 1B4123C | - |
| 147" | 1B4147C | - |

Offset Angle Posts

A roll formed high strength post which permits 1" vertical shelf adjustment using clips or nuts & bolts. Can be used at rear of units, or at front and rear. Offset recess adds rigidity and allows for independent shelf clip adjustment. Ends of flanges are punched on 3" centers to accept sway braces or closed panels.



Offset Angle Posts

| Unit Height | 14 Gauge Cat. No. | 16 Gauge Cat. No. |
|-------------|-------------------|-------------------|
| 39" | 1A4039C | - |
| 48" | 1A4048C | - |
| 75" | 1A4075C | - |
| 87" | 1A4087C | 1A6087C |
| 99" | 1A4099C | - |
| 123" | 1A4123C | - |
| 147" | 1A4147C | - |

Closed Upright Assemblies

Steel End or Intermediate Panels are used to close the sides of 87" tall shelving units and are securely welded to posts for rigidity.

Small Components

A & B. Clipper Clips - One piece 14 gauge compression clip for box and offset angle posts to hold shelf securely. A. For Hi-Performance Shelves; B. For Standard Flange Shelves.

C. Post Splice - Used to join Box or Angle posts for high-rise or multi-level shelving applications.

D. Floor Anchor Clip (Foot Plate) Punched for fastening posts to floor. Bolts to post.

E. Floor Protector - To distribute unit load and protect floor. For box and angle posts. Not for use on high-rise or multi-level shelving.

F. Anchors - For securing shelving posts to a concrete floor when Floor Anchor Clips are used. Use the longer anchor #9281 in seismic zones higher than 2A.

G. Heavy Duty Foot Plate - For box, single or double angle posts in high seismic areas.



Small Components

| Letter | Unit Description | Cat. No. |
|--------|---|----------|
| A | Clipper Clip (Hi-Performance) | 10002Z |
| B | Clipper Clip (Standard Flange) | 100001Z |
| C | Post Splice | 10030H |
| D | Floor Anchor Clip, 3-1/2" x 2-7/8" | 10006Z |
| - | Shim for "D", 3-1/2" x 2-7/8", 11 Gauge | 10011 |
| E | Floor Protector, 1-3/4" x 2-5/8" | 10007Z |
| F | Anchor, 3/8" x 2-1/4" | 9280 |
| | Anchor, 3/8" x 3-3/4" | 9281 |
| G | Foot Plate, Heavy Duty, 5-1/2" x 2-3/8", 7 Ga. | 1ACX322H |
| - | Shim, Hvy. Duty for "G", 5-1/2" x 2-3/8", 7 Ga. | 1ACX330 |

14 Gauge Clipper Post Capacities (Pounds)

| Unbraced Length (Max. Space Between Shelves) | Box Post Capacity | Single Angle Capacity | Double Angle Capacity (Bolted on 12" Centers) |
|--|-------------------|-----------------------|---|
| 9" | 6740 lb | 3760 lb | 8270 lb |
| 12" | 6450 lb | 3490 lb | 7670 lb |
| 15" | 6070 lb | 3130 lb | 6880 lb |
| 18" | 5630 lb | 2700 lb | 5940 lb |
| 21" | 5090 lb | 2180 lb | 4790 lb |
| 24" | 4480 lb | 1680 lb | 4460 lb |

Closed Upright Assemblies

| Unit Depth | Unit Height | Cat. No. |
|------------|-------------|----------|
| Box Post | | |

Box Post, 1 Angle Post, 1 Side Panel

| | | |
|-----|-----|---------|
| 12" | 87" | 15412CC |
| 18" | 87" | 15418CC |
| 24" | 87" | 15424CC |

Offset Angle Post

| | | |
|-------------------------------|--|--|
| Offset Angle Post | | |
| 2 Offset Angles, 1 Side Panel | | |

| | | |
|-----|-----|---------|
| 12" | 87" | 15412AC |
| 18" | 87" | 15418AC |
| 24" | 87" | 15424AC |

Box Post Intermediate

| | | |
|--|--|--|
| Box Post Intermediate | | |
| Box Post, 2 Offset Posts, 1 Side Panel | | |

| | | |
|-----|-----|---------|
| 12" | 87" | 15412BC |
| 18" | 87" | 15418BC |
| 24" | 87" | 15424BC |

Clipper® Shelving



A For Open Construction Sway Braces (A & B)

Sway braces provide stability for Open Type shelving. They are furnished in sets of two braces to fasten to one back or side of a unit. Hardware included.

Back sway braces (A.) eliminate lateral sway. They fasten to the flanges of offset angle posts used at the rear of units. Braces also bolt to each other at the center hole to ease installation.

Side sway braces (B.) eliminate front to back sway. They fasten to the flanges of the front and rear posts.



Shelving Components

| Sway Braces | | | | | |
|-------------|------------------|------------|------------|----------------------|----------|
| Letter Code | Description | Unit Width | Unit Depth | Overall Piece Length | Cat. No. |
| A | Back Sway Braces | 24" | - | 45" | 12045A |
| | | 30" | - | 50" | 12050A |
| | | 36" | - | 50-3/4" | 12036H |
| | | 42" | - | 57-1/8" | 12042H |
| | | 48" | - | 65-1/2" | 12048H |
| B | Side Sway Braces | - | 9" | 11" | 12011S |
| | | - | 12" | 15" | 12015S |
| | | - | 15" | 19" | 12019S |
| | | - | 18" | 26" | 12026S |
| | | - | 24" | 34" | 12034S |
| | | - | 30" | 45" | 12045S |
| | | - | 32" | 46-1/4" | 12046S |
| | | - | 36" | 49" | 12049S |

| Back and Side Panels | | | | | | | | | |
|----------------------|-------------|-------------|-------------|------------|------------|------------|------------|------------|------------|
| Letter Code | Description | Shelf Width | Shelf Depth | 39" Height | 48" Height | 51" Height | 75" Height | 87" Height | 99" Height |
| C | Back Panels | 24" | - | - | - | - | - | 12340H | - |
| | | 30" | - | - | - | - | - | 12440H | - |
| | | 36" | - | 12500H | - | 12510H | 12530H | 12540H | 12550H |
| | | 42" | - | 12600H | - | 12610H | 12630H | 12640H | 12650H |
| | | 48" | - | 12700H | - | 12710H | 12730H | 12740H | 12750H |
| D | Side Panels | - | 9" | - | - | - | - | 11340H | - |
| | | - | 12" | 11400H | 11409H | 11410H | 11430H | 11440H | 11450H |
| | | - | 15" | - | - | - | - | 11540H | - |
| | | - | 18" | 11600H | 11609H | 11610H | 11630H | 11640H | 11650H |
| | | - | 24" | 11700H | - | 11710H | 11730H | 11740H | 11750H |
| | | - | 30" | 11800H | - | - | - | 11840H | 11850H |
| | | - | 36" | 11900H | - | - | 11930H | 11940H | 11950H |



Back and Side Panels (C & D)

Panels to enclose the backs and sides of Closed Type Shelving provide unit stability while giving greater protection to the shelving contents.

Back panels (C.) bolt to the flanges of offset angle posts at the rear of units. The center of the back is held tight against a shelf with a "back panel clip" furnished with each back. Common backs may be used when units are placed back-to-back, provided that units are securely bolted together.

Backs 36" wide are furnished in one piece through 87" high. Over 87" high, they are split horizontally (2 pieces). 42" & 48" wide backs are furnished in one piece through 51" high; above 51" they are split horizontally (2 pieces). Hardware included.

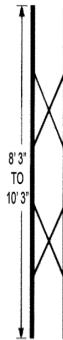
Side panels (D.) fasten to the flanges in the front and rear posts. Furnished in one piece through 87" high. As an alternate to side panels, you may order Closed Upright Assemblies (shown on the previous page) which combine posts and side panels in one welded unit.

Sway Braces

Open shelving units, 87" high or shorter, must have at least one set of side sway braces per side and one set of back braces. Both side and back braces may be common with adjacent units. For multiple level, deck-over or high-rise shelving structures, the lowest set of braces should be within

4 1/2" of the floor. For posts over 87" high up to 123", order two sets of side and rear braces for each unit. Posts taller than 123" may require additional bracing.

For brace location requirements in regions where there is seismic activity, contact a local consultant or the Penco Product Management and Systems Engineering Department.



Clipper® Shelving



Hi-Performance® Shelves



Clipper Hi-Performance® Shelves maximize load handling capacity through a design which shapes the front and rear flanges into rigid tubular box beams. The box shape provides two vertical surfaces in each box-flange that inherently give it a high strength-to-weight ratio. Additional reinforcing bars or angles are not used with Hi-Performance shelves. Reinforcing options for Class 3 shelves are shown at right.

The shelves are efficiently manufactured from high strength cold rolled steel on a modern automated roll forming mill.

For additional strength, front and rear flanges are welded to the underside of the shelf on 3" centers. Shelf corners are lapped and welded.

Shelves are available in a wide variety of sizes shown below in the capacity chart. All shelves are punched on 1.5" centers to accept shelving accessories such as dividers, label holders and bin fronts.

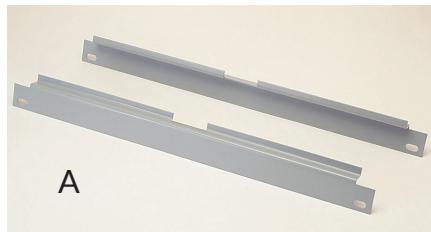
Clipper Hi-Performance® Shelves

maximize load handling capacity through a design which shapes the front and rear flanges into rigid tubular

box beams. The box shape provides two vertical surfaces in each box-flange that inherently give it a high strength-to-weight ratio. Additional reinforcing bars or angles are not used with Hi-Performance shelves. Reinforcing options for Class 3 shelves are shown at right.

A. Class 3 Side Shelf Support (pairs)

Used to support Center Support in Class 3 applications.



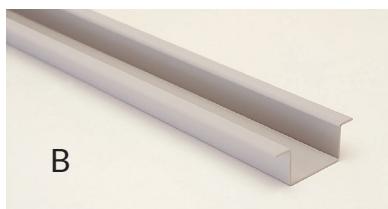
Class 3 Side Shelf Support

| Unit Depth | Cat. No. |
|------------|----------|
| 18" | 1H830H |
| 24" | 1H840H |
| 30" | 1H850H |
| 36" | 1H860H |

A

B. Class 3 Center Support

Runs left to right beneath the mid-point of the shelf for conversion to Class 3. Supported by side shelf supports.



Class 3 Center Support

| Unit Width | Cat. No. |
|------------|----------|
| 36" | H13736C |
| 42" | H13742C |
| 48" | H13748C |

Clipper Hi-Performance® Shelf Capacities



Class 1
Heavy Duty
High Strength Steel



Class 2
Extra Heavy Duty
High Strength Steel



Class 3
Extra Heavy Duty
With Reinforcing*

| Unit Width | Unit Depth | Cat. No. | Capacity | Cat. No. | Capacity | Capacity |
|------------|------------|-----------|----------|-----------|----------|----------|
| 36" | 12" | 1H203612C | 800 lb | 1H183612C | 1100 lb | - |
| | 15" | 1H203615C | 800 lb | 1H183615C | 1100 lb | - |
| | 18" | 1H203618C | 850 lb | 1H183618C | 1200 lb | 2000 lb |
| | 24" | 1H203624C | 800 lb | 1H183624C | 1250 lb | 2000 lb |
| | 30" | 1H203630C | 500 lb | 1H183630C | 900 lb | 2000 lb |
| | 36" | 1H203636C | 500 lb | 1H183636C | 900 lb | 2000 lb |
| 42" | 12" | 1H204212C | 600 lb | 1H184212C | 1100 lb | - |
| | 15" | 1H204215C | 600 lb | 1H184215C | 1100 lb | - |
| | 18" | 1H204218C | 600 lb | 1H184218C | 1050 lb | 1600 lb |
| | 24" | 1H204224C | 600 lb | 1H184224C | 900 lb | 1600 lb |
| | 30" | 1H204230C | 625 lb | 1H184230C | 1000 lb | 1600 lb |
| | 32" | 1H204232C | 525 lb | 1H184232C | 950 lb | 1600 lb |
| | 36" | 1H204236C | 475 lb | 1H184236C | 900 lb | 1600 lb |
| 48" | 12" | 1H204812C | 500 lb | 1H184812C | 750 lb | - |
| | 15" | 1H204815C | 500 lb | 1H184815C | 850 lb | - |
| | 18" | 1H204818C | 500 lb | 1H184818C | 900 lb | 1200 lb |
| | 24" | 1H204824C | 500 lb | 1H184824C | 900 lb | 1200 lb |
| | 30" | 1H204830C | 500 lb | 1H184830C | 750 lb | 1200 lb |
| | 36" | 1H204836C | 500 lb | 1H184836C | 750 lb | 1200 lb |

* Class 3 Capacities are based upon the use of Extra Heavy Duty Shelves with (A) Side Shelf Supports and (B) Center Support for additional capacity. Must use nuts and bolts for shelves, not clips. All shelves are supplied with Clipper Clips. All shelf load capacities are in pounds for evenly distributed loads, and include a safety factor of 1.65.

Clipper® Shelving

Conventional Flange Shelves



Clipper Conventional Flange Shelves are fabricated from 18 gauge cold rolled steel. All sides of the shelf are double flanged for added strength. The corners are lapped and welded for positive reinforcement. Shelves secure to posts with Penco's unique compression Clipper clip, or can be bolted. Shelves are punched for divider placement on alternating 1" and 2" centers. Reinforcing options are shown at right.

All shelves are supplied with Clipper Clips. Nuts and bolts may be substituted upon request. All capacities are for safe static loads distributed uniformly over the entire shelf surface as determined by test. Refer all "Pass Thru" or other unusual conditions to Penco Engineering for their evaluation.

Class 0 - For Normal Loads. No additional reinforcement.

Class 1-B - For Normal Loads requiring impact resistance. A standard Class 0 Shelf with the addition of a 1" x 1/8" reinforcing bar in the front flange.

Class 2-B - For Medium Loads. Same as Class 1-B with the addition of a reinforcing bar in the rear flange.

Class 2-A - For Medium to Heavy Loads. A standard Class 0 shelf with the addition of field installed 1" x 1" x 1/8" reinforcing angles in front and rear flanges.

A. Reinforcing Bar

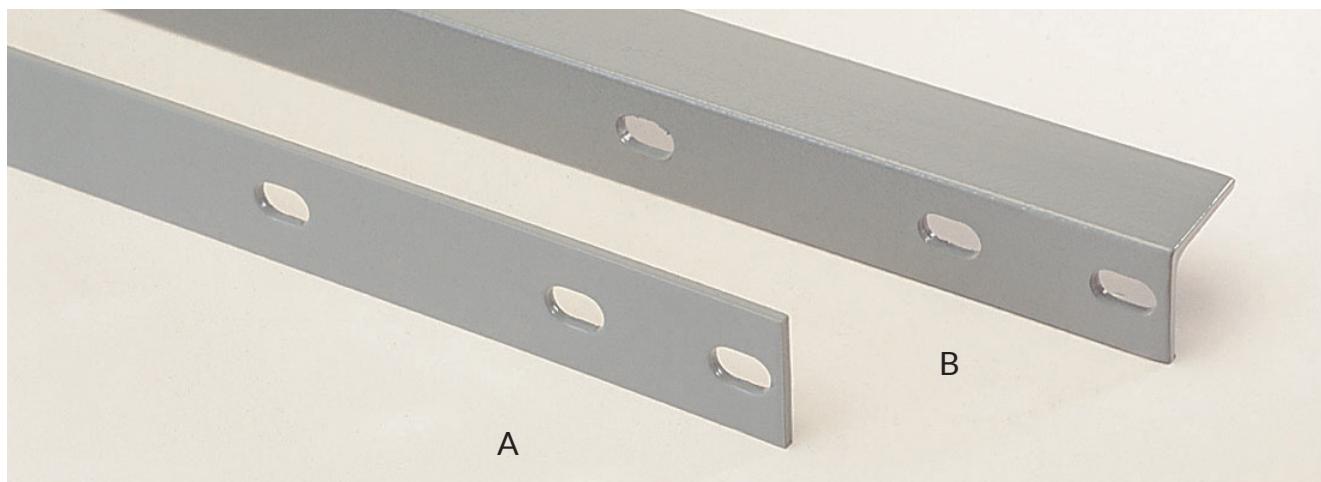
Rolled steel bars insert in the shelf channel for reinforcement. Hardware is included. Not for use with Hi-Performance Shelves.

| A - Reinforcing Bar | | | |
|---------------------|-------|---------|----------|
| Width | Depth | Height | Cat. No. |
| 24" | 1/8" | 1-3/32" | 16650H |
| 30" | 1/8" | 1-3/32" | 16660H |

B. Reinforcing Angle

1/8" thick rolled steel angles added to the shelf flanges for developing class 2A shelves. Hardware is included. Not for use with Hi-Performance shelves.

| B - Reinforcing Angle | | | |
|-----------------------|-------|--------|----------|
| Width | Depth | Height | Cat. No. |
| 24" | 1" | 1" | 16500H |
| 30" | 1" | 1" | 16510H |



Clipper Conventional Flange Shelf Capacities - 18 Gauge

| | | | Class 0 | Class 1-B | Class 2-B | Class 2-A |
|------------|------------|-----------------------------|----------|-----------|---|-----------|
| Unit Width | Unit Depth | Deflection @ Center Ft Edge | Cat. No. | Capacity | Capacity | Capacity |
| 24" | 12" | .200" | 12810C | 990 lb | NOTE: Class 1 shelves do not have any more load carrying capabilities over Class 0, but should be used where impact or concentrated loads occur along the front edge. | 1270 lb |
| | 18" | .200" | 12830C | 1110 lb | | 1430 lb |
| | 24" | .200" | 12840C | 1140 lb | | 1090 lb |
| 30" | 12" | .250" | 12910C | 760 lb | | 980 lb |
| | 18" | .250" | 12930C | 820 lb | | 1060 lb |
| | 24" | .250" | 12940C | 920 lb | | 1030 lb |

Clipper® Shelving



Shelving Accessories



Finished End Panels

Formed sheet steel panels used to finish the end of a shelving row. Panels attach to posts to cover holes and hardware. Presents an attractive and finished appearance. Must be used with Box Post at front, Angle Posts at rear.

| Finished End Panels | | |
|---------------------|-------------|----------|
| Unit Depth | Unit Height | Cat. No. |
| 12" | 87" | 18241H |
| 18" | 87" | 18440H |
| 24" | 87" | 18540H |



Front Base Strips

Closes the space between the floor and bottom shelf. Hardware included. The 4" high base is for use with the heavy duty foot plate.

| Front Base Strip | | |
|------------------|-------------|----------|
| Unit Width | Unit Height | Cat. No. |
| 24" | 3" | 14500H |
| 30" | 3" | 14510H |
| 36" | 3" | 14520H |
| 36" | 4" | 14525H |
| 42" | 3" | 14530H |
| 48" | 3" | 14540H |



Swinging Doors

3 Point latching with locking handle and 2 keys. Doors are pre-hung at the factory on a welded frame for easy assembly and good fit. Can be used on standard ledge or counter units up to 87" high. Order doors separately from units. Door can be attached to box posts or angle posts. Base strips should be ordered to close the opening between the door frame and the floor.

NOTE: Not for use with Modular Drawers.

| Swinging Doors | | | |
|-----------------------------------|-------------------|-------------|---------------|
| Unit Width | Door Frame Height | Unit Height | Pair Cat. No. |
| For Below Ledge or Counter Height | | | |
| 36" | 36" | 39" | 19600H |
| For Above Ledge Unit | | | |
| 36" | 48" | 48" | 19610H |
| For Standard Shelving Units | | | |
| 36" | 73" | 75" | 19630H |
| 36" | 85" | 87" | 19640H |
| 48" | 36" | 39" | 19646H |
| 48" | 85" | 87" | 19650H |

Clipper® Shelving

Shelving Accessories

A. - Bin Front

A formed steel panel partially enclosing the front opening of a shelf to keep bulk items within a bin. 1" & 2" Bin Fronts attach to the front of the shelf with bolts & nuts. 3" high Bin Front attaches to posts with metal clips. Hardware included.

B. - Sliding Divider

Formed to fit around front and rear flanges on the shelf. Position anywhere on surface. No hardware needed. For Hi-Performance Shelves.

C. - Partial Dividers

Partially subdivides shelf to separate stored items. Fastens to the shelf with plastic buttons (included).

D. - Full Height Dividers

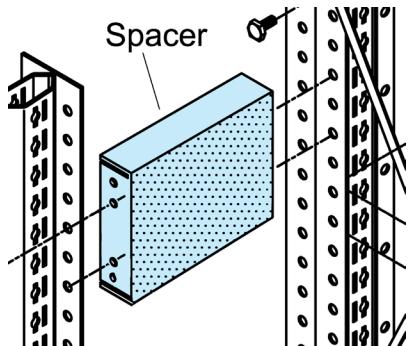
Used to divide a shelf opening into smaller units. Divider has a beaded front edge for strength and safety. Fastens to the shelf with plastic buttons (included). NOTE: For Class 3 shelving applications, contact your representative regarding special notching of dividers.

E. - Label Holders

A formed steel strip that accepts 7/8" labels. Fastens to the shelf with plastic buttons (included).

F. - Flue Spacer

A component that can provide a 6" open area between rows of back-to-back shelving to facilitate installation of fire suppression equipment (hardware included).



| A. - C. Accessories | | | | | |
|---------------------|------------------|------------|------------|-------------|----------|
| Letter Code | Unit Desc. | Unit Width | Unit Depth | Unit Height | Cat. No. |
| A | Bin Front | 36" | - | 1" | 14210H |
| | | 36" | - | 2" | 14220H |
| | | 36" | - | 3" | 14230C |
| | | 42" | - | 3" | 14330C |
| | | 48" | - | 3" | 14430C |
| B | Sliding Divider | - | 12" | 4" | 1H4124C |
| | | - | 12" | 6" | 1H4126C |
| | | - | 18" | 4" | 1H4184C |
| | | - | 18" | 6" | 1H4186C |
| | | - | 24" | 4" | 1H4244C |
| | | - | 24" | 6" | 1H4246C |
| C | Partial Dividers | - | 12" | 2" | 16395H |
| | | - | 12" | 4" | 16410H |
| | | - | 18" | 2" | 16397H |
| | | - | 18" | 4" | 16430H |
| | | - | 24" | 4" | 16440H |



| D. - F. Accessories | | | | | |
|---------------------|----------------------|------------|------------|-------------|----------|
| Letter Code | Unit Desc. | Unit Width | Unit Depth | Unit Height | Cat. No. |
| D | Full Height Dividers | - | 12" | 6" | 15600H |
| | | - | 12" | 9" | 15620H |
| | | - | 12" | 12" | 15640H |
| | | - | 12" | 14" | 15650H |
| | | - | 12" | 18" | 15670H |
| | | - | 15" | 6" | 15700H |
| | | - | 15" | 9" | 15720H |
| | | - | 15" | 12" | 15740H |
| | | - | 18" | 6" | 15800H |
| | | - | 18" | 9" | 15820H |
| | | - | 18" | 10" | 15830H |
| | | - | 18" | 12" | 15840H |
| | | - | 18" | 16" | 15860H |
| | | - | 18" | 18" | 15870H |
| | | - | 18" | 24" | 15890H |
| | | - | 24" | 6" | 15900H |
| | | - | 24" | 9" | 15920H |
| | | - | 24" | 12" | 15940H |
| | | - | 24" | 18" | 15970H |
| | | - | 24" | 24" | 15990H |
| E | Label Holders | 24" | - | - | 13900H |
| | | 30" | - | - | 13910H |
| | | 36" | - | - | 13920H |
| | | 42" | - | - | 13930H |
| | | 48" | - | - | 13940H |
| F | Flue Spacer | - | 6" | 4" | 1ACX522H |

QuickShip Clipper® Shelving



Touch Up Spray Paint - 12 oz.

Must be ordered with
lockers, shelving, or
RivetRite products.

028 Gray
97028Z

Basic Clipper Shelving OPEN QuickShip Units - 87" High



| Unit Width | Shelf Depth | 5 Shelf Cat. No. | 6 Shelf Cat. No. | 7 Shelf Cat. No. | 8 Shelf Cat. No. |
|------------|-------------|------------------|------------------|------------------|------------------|
| 36" | 12" | 1H7015028 | 1H7016028 | 1H7017028 | 1H7018028 |
| | 18" | 1H7025028 | 1H7026028 | 1H7027028 | 1H7028028 |
| | 24" | 1H7035028 | 1H7036028 | 1H7037028 | 1H7038028 |
| 48" | 12" | 1H7075028 | 1H7076028 | 1H7077028 | 1H7078028 |
| | 18" | 1H7085028 | 1H7086028 | 1H7087028 | 1H7088028 |
| | 24" | 1H7095028 | 1H7096028 | 1H7097028 | 1H7098028 |

Pictured at left:
a 5-shelf Open Basic
Unit. It requires an
Open End Kit for
completion (see below).

Basic Clipper Shelving CLOSED QuickShip Units - 87" High



| Unit Width | Shelf Depth | 1H8015028 | 1H8016028 | 1H8017028 | 1H8018028 |
|------------|-------------|-----------|-----------|-----------|-----------|
| 36" | 12" | 1H8025028 | 1H8026028 | 1H8027028 | 1H8028028 |
| | 18" | 1H8035028 | 1H8036028 | 1H8037028 | 1H8038028 |
| | 24" | 1H8075028 | 1H8076028 | 1H8077028 | 1H8078028 |
| 48" | 12" | 1H8085028 | 1H8086028 | 1H8087028 | 1H8088028 |
| | 18" | 1H8095028 | 1H8096028 | 1H8097028 | 1H8098028 |
| | 24" | | | | |

Pictured at left: a
5-shelf Closed Basic
Unit. It requires a
Closed End Kit for
completion (see below).

Clipper QuickShip Components

| | Description | W | D | H | Cat. No. |
|--|-----------------------|--------|--------|--------|-----------|
| | Box Post | - | - | 87" | 1B4087028 |
| | Offset Angle Post | - | - | 87" | 1A4087028 |
| | Floor Anchor Clip | 3-1/2" | 2-7/8" | - | 10006Z |
| | Concrete Floor Anchor | 3/8" | - | 2-1/4" | 9280 |
| | Back Sway Braces | 36" | - | - | 12036H028 |
| | | 48" | - | - | 12048H028 |
| | Side Sway Braces | - | 12" | - | 12015S028 |
| | | - | 18" | - | 12026S028 |
| | | - | 24" | - | 12034S028 |
| | Back Panels | 36" | - | 87" | 12540H028 |
| | | 48" | - | 87" | 12740H028 |
| | Side Panels | - | 12" | 87" | 11440H028 |
| | | - | 18" | 87" | 11640H028 |
| | | - | 24" | 87" | 11740H028 |
| | Front Base Strips | 36" | - | 3" | 14520H028 |
| | | 48" | - | 3" | 14540H028 |

Heavy Duty Shelves & Capacities (Each Shelf comes with 4 Clipper Clips)

| Size | Cat. No. | Capacity |
|---------------|-------------|-----------|
| 36" W x 12" D | 1H203612028 | 800 lbs.* |
| 36" W x 18" D | 1H203618028 | 850 lbs.* |
| 36" W x 24" D | 1H203624028 | 800 lbs.* |
| 48" W x 12" D | 1H204812028 | 500 lbs.* |
| 48" W x 18" D | 1H204818028 | 500 lbs.* |
| 48" W x 24" D | 1H204824028 | 500 lbs.* |

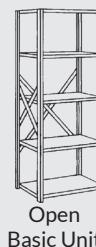
* Evenly Distributed Loads for Clipper Hi-Performance Heavy Duty Class 1 Shelves.

Clipper Shelving QuickShip End Kits - 87" High

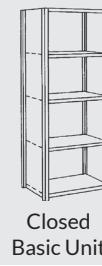
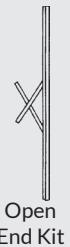
| End Kits | Unit Depth | For OPEN Units Cat. No. | For CLOSED Units Cat. No. |
|----------|------------|-------------------------|---------------------------|
| | 12" | 101287028 | 1C1287028 |
| | 18" | 101887028 | 1C1887028 |
| | 24" | 102487028 | 1C2487028 |

Clipper® QuickShip Adjustable Shelving

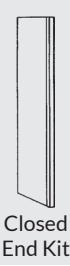
- High Quality Industrial Grade
- Open and Closed Configurations
- 87" high units with Box & Angle Posts
- Shelves adjust on 1" vertical centers
- Heavy duty box beam shelves - 4 sizes
- Attractive 028 Gray powder coat finish
- Accessories - Front Bases, Anchors and Floor Anchor Clips



Use an OPEN Clipper Basic Unit to start a single unit or a row of shelving. Add additional Clipper Basic Units to add to the row. To end a row or single unit, finish the unit with an OPEN End Kit.



Use a CLOSED Clipper Basic Unit to start a single unit or a row of closed shelving. Add additional Closed Clipper Basic Units to add to the row. To end a row or single unit, finish the unit with a CLOSED End Kit.



Clipper® Shelving

Specifications

General: All shelving shall comply with SMA and ANSI MH 28.1-1982 and in addition shall have the following characteristics:

Posts: All posts shall be punched for clip or nut and bolt construction. Shelves and accessories are to be vertically adjustable on 1" centers. Side sway braces or side panels to be attached to the side flange of the post. Bolts, nuts, and sway braces or panels shall not obstruct the full adjustability of the shelves.

Box Post: Box post to be roll formed and have overall dimensions of 3/4" wide x 2-7/16" deep. Box post to be flush within 1/4" of the face of the shelves when assembled.

Offset Angle: Offset angle post shall be roll formed and have overall dimensions of 1-1/8" wide x 2-1/2" deep. The rear flange shall be punched to accept sway braces or backs, the side flange shall be punched to accept side sway braces or side panels.

Side Panels: Shall be 24 gauge steel. Each side shall be punched with holes for bolting to posts.

Backs: Shall be 24 gauge steel with holes on each side for bolting to angle posts and in the middle for using a back panel clip.

Sway Braces: To be 12 gauge x 3/4" steel punched at each end for bolting to posts and at the center for strength and ease of assembly.

Clipper Shelf Clip: One piece 14 gauge rugged compression type to insert into either box or offset angle posts to form a positive four point connection. Clips shall have two claw-like hooks to seat firmly into post slots and two tabs at bottom to seat into post holes for a tight friction connection. All clips for all posts and shelves to be the same. Design shall offer a pre-clipping feature to simplify erection. Finish: zinc plated. All shelves are to have four independently adjustable clips.

Shelves: Conventional Flange, Class "O": Shall be 18 gauge steel with a 1-3/16" vertical face on all four sides, front and rear faces to have 17/32" return flange 90° with the edges coined upward to prevent snagging. Sides to have a 5/8" return flange 90°. All four shelf corners shall be closed by lapping and spot welding together to provide a firm, rigid shelf. Shelf shall be universally punched for use with all available accessories and for clip or bolted assembly. Shelves are available in 24", 30", 36", 42" and 48" widths and 9", 12", 15", 18", 24", 30" and 36" depths. Shelves can be reinforced by adding 1-3/32" x 11 ga. bars or 1" x 1" x 1/8" angles to front and back flanges.

Shelves: Clipper Hi-Performance® Box Formed: Heavy Duty and Extra Heavy Duty are manufactured from cold rolled steel in two material thicknesses that provide up to two different shelf capacities per size. Shelves have 1-1/4" face on all four sides. Front and rear faces have four 90° bends providing a 3/4" x 1-1/4" high tubular shape with an 11/16" wide flange seated against the underside of the shelf. The flange is spot welded to the underside of the shelf on 3" centers. Sides have a 5/8" return flange 90°. All four corners are closed by lapping and spot welding together. Overall, the shelf depth and width is 1/4" less than nominal. The shelf is punched for divider adjustment on 1-1/2" centers and for attachment of label holders, bin fronts and base fronts. Hi-Performance shelves are available in 30", 36", 42", & 48" widths and 12", 15", 18", 24", 30" & 36" depths.

Extra Heavy Duty Reinforced (Class 3) Hi-Performance Shelves provide maximum capacity using Extra Heavy Duty shelves that are reinforced using 13 gauge side shelf supports bolted to the Clipper posts and 14

gauge 1-5/32" high hat shaped center supports held in place by a notch and flange in the side shelf support.

Ledge Tops: To be 14 gauge steel. Face of ledge to be 1-1/8" and have a center reinforcing pan. Ledge top to project 1-1/8" beyond the face of the post and to have two 14 gauge angles welded to underside for strength and bolting to post. Must be used with box posts below ledge.

Ledge Top Finishing Strips: To be manufactured from 14 gauge steel and furnished to give ledge top a finished appearance.

Counter Tops: To be 14 gauge steel. Face of counter top to be 1-1/8" and project 1-1/8" beyond face of post with a welded center reinforcing pan. Units to be furnished with box post front and rear for finished appearance. 14 gauge counter top ends can be furnished at the ends of all rows for a finished appearance.

Counter Front: To be 18 gauge steel attached with no exposed fasteners.

Base Strip: Shall be 18 gauge steel attached to face of shelf with bolts and nuts to close space between the bottom of the shelf and the floor.

Label Holder: Shall be 24 gauge steel with necessary holes for attaching to shelves with plastic push-in fasteners.

Shelf Dividers: 6" high through 20" high shall be 24 gauge, 24" high and over shall be 20 gauge. All divider front flanges shall have a 5/16" diameter bead. Top, bottom and rear flanges are 7/8". Dividers less than 24" high shall be attached with plastic push-in fasteners, 24" and higher are bolted.

Partial Dividers: Shall be 18 gauge steel with a 7/8" flange at the bottom. Attached with push-in Plastic Button fasteners.

Sliding Divider: To be 20 gauge steel manufactured to give infinite lateral adjustability. Divider portion shall be sloped 45° at front, 1/2" radius at front corner.

Bin Fronts: To be 18 gauge steel. One and two inch high bin fronts shall be bolted to the face of the shelf. Three inch high bin fronts to be attached to the post by use of 16 gauge zinc plated channel clips.

Swinging Doors: Consist of a 16 gauge steel frame and 20 gauge doors, reinforced to prevent warping. Doors are riveted to three 5-knuckle hinges and have a three-point latching device with chrome plated key lock handle. Doors to be preassembled in the frame at factory.

Foot Plates: Shall be 13 gauge zinc plated steel and be used to protect floors.

Finish: Finish to be selected from manufacturer's standard colors. Surface to be pretreated with a multiple stage cleaning and metal preparation process. Finish coat of high grade pure polyester powder coat is applied and properly cured to paint manufacturer specifications to achieve optimum performance.

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Wide Span



Introduction

For HIGH, WIDE or BULKY Hand-Loaded Items

Penco Wide Span is the standard of the industry for shelving designed to contain wide, bulky loads. It bridges the storage gap between conventional shelving and pallet rack. The range of applications can be from a single unit (right) to a sophisticated multi-level picking system (bottom).

Penco Wide Span is easily the quickest shelving product to assemble. There are a minimum number of parts that snap or fit into place quickly and easily. No bracing to add and no hardware required. Not to be loaded with fork trucks.



Multi-level Wide Span Pick Module



Optional wire deck shelves



Museum storage



Auto part center storage

How To Order Wide Span Units

Wide Span Units are easy to order. Shown on the next page are common sizes of units for 3 levels of plywood shelves.

Many other sizes are available by ordering from the component parts on the following pages. Allow for the width of each upright post in planning your layout. The Wide Span Growth Chart on the next page illustrates this concept for your convenience.

To order Wide Span Shelving Units:

1. Order as many Basic Units as you need for your row of shelving.
2. Order one Rack Ending Kit to end each row or single unit (plywood must be purchased separately).

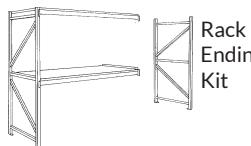
Growth Dimension Considerations

When planning a row of Wide Span Shelving, allow for the 1-3/4" width of each upright post and 1/4" additional per bay for the thickness of the beam ends. The Wide Span Growth Chart on the following page shows typical growth for two 96" steel shelf units and 96-1/2" plywood beam units.

For safety purposes, we recommend that Wide Span Uprights be floor or wall anchored.

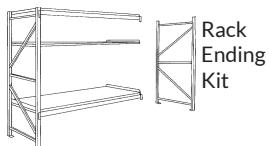
Wide Span

Wide Span Units



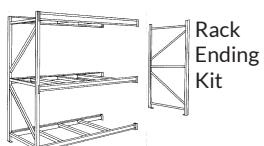
Basic 2-Shelf Unit

1 Upright Frame
2 Steel Shelf Levels
2 Pair Side Shelf Supports
2 Pair Rigidity Beams



Basic 3-Shelf Unit

1 Upright Frame
3 Steel Shelf Levels
3 Pair Side Shelf Supports
2 Pair Rigidity Beams



Basic 3-Level Unit for Plywood*

1 Upright Frame
3 Pair Standard Plywood Beams
3 Plywood Support Angles per pair of 72-1/2" Beams
4 Plywood Support Angles per pair of 96-1/2" Beams

ORDER RACK END KITS SEPARATELY. SEE BELOW.

* NOTE: Plywood not included.

Plywood used in lieu of Steel Shelves

Special beams and supports are used when plywood, pressed wood, particle board, oriented strand board or other composition type panels are used in place of steel shelves (these deck materials must be purchased separately).



All Wide Span Beams have a patented Beam Lock that secures the beam end to the upright post to retard accidental beam dislodging. An embossed nib on the beam end engages a slot on the side on the upright post, which holds the beam end tight against the post (U.S. Patent No. 4,928,834). Can be disengaged with a mallet.

Two beam types are available: Standard Plywood Beams, and Heavy Duty Plywood Beams. Each is manufactured an extra 1/2" long to facilitate placement of full foot lengths of decking. Each uses a different type of front to back support for the decking material. Neither can be used in the same unit or bay with standard rigidity beams, because the lengths are different.

Two beam types are available: Standard Plywood Beams, and Heavy Duty Plywood Beams. Each is manufactured an extra 1/2" long to facilitate placement of full foot lengths of decking. Each uses a different type of front to back support for the decking material. Neither can be used in the same unit or bay with standard rigidity beams, because the lengths are different.

Standard Plywood Beams

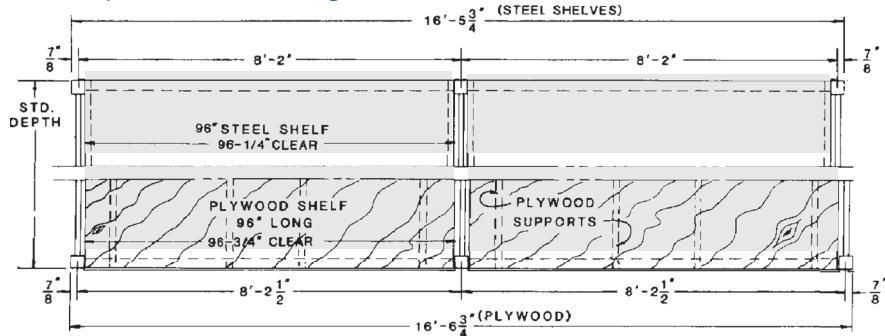
Standard Size panels may be used without trimming. This is accomplished by the step design which allows decking depths which match the upright depth. Capacities vary by beam length. Plywood Support Angles must be ordered separately. [A full 48" x 96" deck will fit on a pair of 96-1/2" beams when 48" deep upright frames are used.]

Heavy Duty Plywood Beams

These beams can support a greater load than Standard Plywood Beams, and have a flush front facing the aisle. Requires the use of Beam Brace/Heavy Duty Plywood Supports which are ordered separately. [A full 48" x 96" deck will fit on a pair of 96-1/2" beams when 50" deep upright frames are used.]

| Wide Span Shelving Units | | | | | | | |
|---------------------------------------|------------|---------------------|-----------------------|---------------------|-----------------------|---------------------|-----------------------|
| Unit Height | Beam Width | 30" Deep | | 36" Deep | | 48" Deep | |
| | | Basic Unit Cat. No. | Rack End Kit Cat. No. | Basic Unit Cat. No. | Rack End Kit Cat. No. | Basic Unit Cat. No. | Rack End Kit Cat. No. |
| Two Shelf Units with Steel Shelves | | | | | | | |
| 72" | 60" | 20351 | 20002C | 20359 | 20003C | 20375 | 20005C |
| | 72" | 20353 | 20002C | 20361 | 20003C | 20377 | 20005C |
| | 84" | 20355 | 20002C | 20363 | 20003C | 20379 | 20005C |
| | 96" | 20357 | 20002C | 20365 | 20003C | 20381 | 20005C |
| 96" | 60" | 20383 | 20018C | 20391 | 20019C | 20407 | 20021C |
| | 72" | 20385 | 20018C | 20393 | 20019C | 20409 | 20021C |
| | 84" | 20387 | 20018C | 20395 | 20019C | 20411 | 20021C |
| | 96" | 20389 | 20018C | 20397 | 20019C | 20413 | 20021C |
| Three Shelf Units with Steel Shelves | | | | | | | |
| 120" | 60" | 20415 | 20034C | 20423 | 20035C | 20439 | 20037C |
| | 72" | 20417 | 20034C | 20425 | 20035C | 20441 | 20037C |
| | 84" | 20419 | 20034C | 20427 | 20035C | 20443 | 20037C |
| | 96" | 20421 | 20034C | 20429 | 20035C | 20445 | 20037C |
| 144" | 60" | 20447 | 20050C | 20455 | 20051C | 20471 | 20053C |
| | 72" | 20449 | 20050C | 20457 | 20051C | 20473 | 20053C |
| | 84" | 20451 | 20050C | 20459 | 20051C | 20475 | 20053C |
| | 96" | 20453 | 20050C | 20461 | 20051C | 20477 | 20053C |
| Three Level Units for Plywood Shelves | | | | | | | |
| 120" | 72-1/2" | - | - | - | - | 20512 | 20037C |
| | 96-1/2" | - | - | - | - | 20514 | 20037C |
| 144" | 72-1/2" | - | - | - | - | 20535 | 20053C |
| | 96-1/2" | - | - | - | - | 20537 | 20053C |

Wide Span Growth Diagram



Shelving Components

Side Shelf Supports

Heavy gauge steel angles which support steel shelves. Each support engages the upright frame at four points. One or more tangs stamped into the surface engages the reinforcing pan on the shelf bottom to prevent accidental dislodging of the shelf. One pair is required for each steel shelf.



| Side Shelf Supports | | |
|---------------------|-------------------|-------------------|
| Unit Depth | Capacity Per Pair | Cat. No. Per Pair |
| 18" | 3600 lb | 22018 |
| 24" | 3600 lb | 22024 |
| 30" | 2900 lb | 22030 |
| 36" | 2400 lb | 22036 |
| 42" | 2100 lb | 22042 |
| 48" | 1800 lb | 22048 |

Rigid Wall Spacers

Assures that uniform spacing between upright and building wall is maintained. Includes hardware to fasten to frame.



| Rigid Wall Spacers | |
|--------------------|----------|
| Unit Depth | Cat. No. |
| 4" | 5AR404 |
| 6" | 5AR406 |
| 8" | 5AR408 |
| 10" | 5AR410 |

Rigid Row Spacers

Used to space and join back-to-back units. Adds rigidity to double row applications. Includes hardware.



| Rigid Row Spacers | |
|-------------------|----------|
| Unit Depth | Cat. No. |
| 6" | 5AR506 |
| 8" | 5AR508 |
| 10" | 5AR510 |
| 12" | 5AR512 |

Standard Plywood Beams

Designed to support 1/2" thick deck material flush with top of beam flange when used with the appropriate number of Plywood Support Angles which insert into slots in beam step. Overall height is 3-1/2". Beam step is 1-1/2" deep by 5/8" high. A 48" deep deck will fit between beams without trimming when a 48" deep upright frame is used.



| Standard Plywood Beams | | |
|------------------------|----------------------|-------------------|
| Beam Width | Capacity Per Pair*** | Cat. No. Per Pair |
| 48-1/2" | 2500 lb | 20337 |
| 60-1/2" | 2120 lb | 20338 |
| 72-1/2" | 1700 lb | 20339 |
| 84-1/2" | 1500 lb | 20340 |
| 96-1/2" | 1350 lb | 20335 |

***Capacity in pounds for evenly distributed loads.

Wide Span

Shelving Components

Heavy Duty Plywood Beams

A heavy duty beam designed for greater capacity when used with deck material. Deck material sits on beam step and is supported by the appropriate number of Beam Brace/Heavy Duty Plywood Supports (order separately). Deck must be trimmed to 2" less depth than the depth of the upright frame.

Heavy Duty Plywood Beams can be used in the same unit or bay with Standard Plywood Beams. However, the decking material must be trimmed 2" for the heavy duty beams. Capacity in pounds for evenly distributed loads.

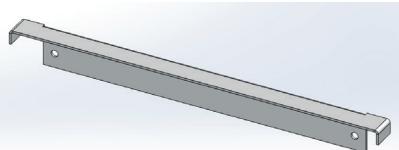


Heavy Duty Plywood Beams

| Beam Width | Capacity Per Pair | Cat. No. Per Pair |
|------------|-------------------|-------------------|
| 48-1/2" | 2500 lb | 210480 |
| 72-1/2" | 2500 lb | 210720 |
| 96-1/2" | 2500 lb | 210960 |

Standard Plywood Support Angles

Standard Plywood Support Angles fit into the slots in the beam step of Standard Plywood Beams. Order separately from beams. Order 2 per pair of 48-1/2" & 60-1/2" beams; 3 for 72-1/2" & 84-1/2" beams; 4 for 96-1/2" beams.



Standard Plywood Support Angles

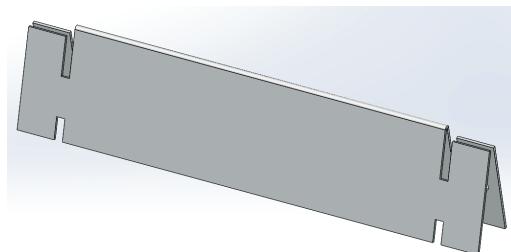
| Depth | Cat. No. |
|-------|----------|
| 18" | 20349C |
| 24" | 20341C |
| 30" | 20330C |
| 36" | 20342C |
| 42" | 20332C |
| 48" | 20336C |

Beam Brace/H.D. Plywood Support

This item fits easily into the inside of the beam opening and has two functions.

When Rigidity Beams are used as load bearing members, the Beam Braces are used to keep the beams from twisting.

When used with Heavy Duty Plywood Beams they are become Plywood supports. Use a minimum of two supports per pair of beams. Use more if required by your load condition - see capacities in the table.

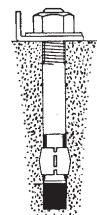


Beam Brace / H.D. Support

| Depth | Capacity | Cat. No. |
|-------|----------|----------|
| 24" | 1200 lb | 202040C |
| 30" | 1100 lb | 202050C |
| 36" | 900 lb | 202060C |
| 42" | 700 lb | 202070C |
| 48" | 500 lb | 202080C |
| 50" | 500 lb | 2P0050C |

Concrete Floor Anchor

Use the longer anchor #9281 in seismic zones above 2A.



Concrete Floor Anchor

| Unit Width | Unit Depth | Unit Height | Basic Unit Cat. No. |
|------------|------------|-------------|---------------------|
| 3/8" | - | 2-1/4" | 9280 |
| 3/8" | - | 3-3/4" | 9281 |

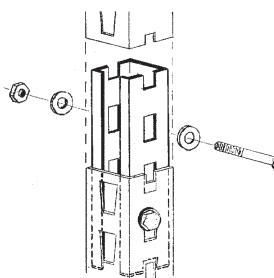
Wide Span



Shelving Components

Upright Frame Splice

Note that TWO splices must be ordered per frame. Top upright frame **MUST** be ordered without footplate. Hardware included.

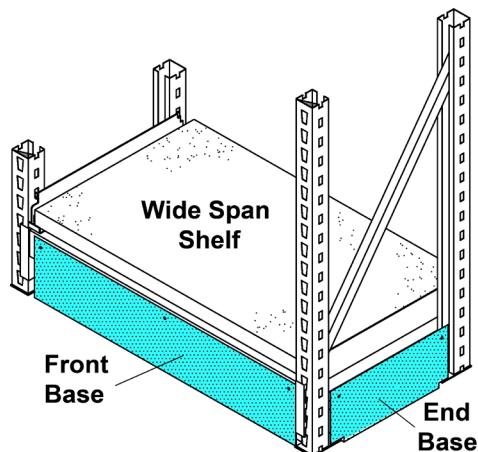


Wide Span Upright Frame Accessories

| Unit Width | Unit Depth | Unit Height | Cat. No. |
|----------------------|------------|-------------|----------|
| Upright Frame Splice | | | |
| - | - | 8" | 20099H |
| Shim, unpainted | | | |
| 2-1/2" | 3-1/2" | - | 20100C |

Wide Span Base Closures

These base closures will close the space beneath a unit between the bottom Rigidity or Heavy Duty Plywood Beam at their lowest position, and the floor, or at the end of the unit between the lowest horizontal brace and the floor. They are supplied with tek screws for fastening.



Wide Span End Bases

| Depth | Height | Cat. No. |
|-------|--------|----------|
| 18" | 7-3/4" | |
| 24" | 7-3/4" | |
| 30" | 7-3/4" | |
| 36" | 7-3/4" | |
| 42" | 7-3/4" | |
| 48" | 7-3/4" | |
| 50" | 7-3/4" | |

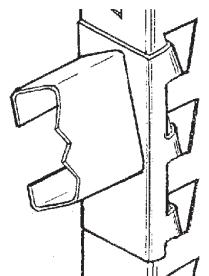
Wide Span Front Bases

| Width | Height | Cat. No. |
|-------|--------|----------|
| 48" | 6" | 202200H |
| 60" | 6" | 202201H |
| 72" | 6" | 202202H |
| 84" | 6" | 202203H |
| 96" | 6" | 202204H |

Tire Rack Beams

Beam is slanted to cradle tires. It is designed to be installed on aisle side of unit.

Penco can supply special beams for installation on the aisle side that are slanted to accept passenger tires, while standard Rigidity Beams are used at the rear. Contact your Penco representative for more information on Tire Rack Units.



Tire Rack Beams (Each)

| Unit Width | Cat. No. |
|------------|----------|
| 48" | 20619C |
| 60" | 20620C |
| 72" | 20621C |

Tire Rack Upright Frames

| Unit Depth | Unit Height | Cat. No. |
|--------------------------------------|-------------|----------|
| Single Entry Units (with Footplates) | | |
| 18" | 96" | 20016C |
| 18" | 126" | 20260C |
| 18" | 156" | 20056C |
| 18" | 192" | 24040C |
| Double Entry Units | | |
| 38" | 96" | 20262C |
| 38" | 126" | 20263C |
| 38" | 156" | 20264C |
| 38" | 192" | 20265C |

Tire Rack Units

| Unit Width | Unit Depth | Unit Height | Cat. No. |
|---------------------------|------------|-------------|----------|
| Basic Units, Single Entry | | | |
| 60" | 18" | 96" | 20651 |
| 60" | 18" | 126" | 20653 |
| 60" | 18" | 156" | 20655 |
| 60" | 18" | 192" | 20657 |
| Basic Units, Double Entry | | | |
| 60" | 38" | 96" | 20659 |
| 60" | 38" | 126" | 20661 |
| 60" | 38" | 156" | 20663 |
| 60" | 38" | 192" | 20665 |

Wide Span

Shelving Components

Upright Frames



Penco Wide Span Upright Frames are made from heavy gauge steel, MIG welded into one rigid assembly containing posts, diagonal and horizontal braces and foot plates for anchoring. There is no assembly required. Other sizes are available. See page 11 for anchors.

Posts are punched on the face to provide positive independent beam placement on 2" vertical centers. The posts are marked on 12" centers to facilitate placement of shelf levels. A slot on each side of the post accepts a nib on the end of each beam, to lock it in place.

Frames have a capacity of 7,500 pounds with a 1.92 safety factor where vertical beam spacing does not exceed 60". Footplates are punched for anchoring: see "Anchors" in the post section of Clipper shelving on page 11.

| Upright Frames | | | | | | | |
|----------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|--------------------|
| Unit Height | 18" Deep Cat. No. | 24" Deep Cat. No. | 30" Deep Cat. No. | 36" Deep Cat. No. | 42" Deep Cat. No. | 48" Deep Cat. No. | 50" Deep Cat. No.* |
| 72" | 20000C | 20001C | 20002C | 20003C | 20004C | 20005C | 2P072C |
| 84" | 20008C | 20009C | 20010C | 20011C | 20012C | 20013C | 2P084C |
| 96" | 20016C | 20017C | 20018C | 20019C | 20020C | 20021C | 2P096C |
| 120" | 20032C | 20033C | 20034C | 20035C | 20036C | 20037C | 2P020C |
| 144" | 20048C | 20049C | 20050C | 20051C | 20052C | 20053C | 2P044C |
| 168" | - | 20065C | 20066C | 20067C | 20068C | 20069C | 2P068C |
| 192" | - | 24001C | 24002C | 24003C | 24004C | 24005C | 2P092C |

* 50" deep frame is for use with H.D. Plywood Beam. Allows use of standard 48" plywood deck without cutting for depth dimension.



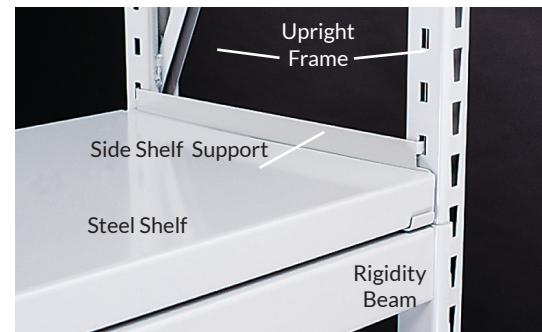
Rigidity Beams

Rigidity beams provide lateral stability when steel shelves are used. A minimum of 2 pairs of beams is required per unit. They are constructed of 3" high steel channels with return flanges, with a beam end connector welded to each end.

It is not necessary to place rigidity beams beneath each steel shelf. Rigidity Beams do not carry a load unless used to support wire decking. If used with wire decking, then use the Beam Brace/Heavy Duty Plywood Supports (shown on the page 22).

| Rigidity Beams | | |
|----------------|---------------------|-------------------|
| Unit Width | Capacity Per Pair** | Cat. No. Per Pair |
| 48" | 2500 lb | 20315 |
| 60" | 2140 lb | 20316 |
| 72" | 1780 lb | 20317 |
| 84" | 1580 lb | 20318 |
| 96" | 1340 lb | 20319 |

**Capacity per pair in pounds for evenly distributed load when used as load bearing members using Beam Braces/H.D. Plywood Supports as follows: 60" x 72" length, 1 Beam Brace; 84" x 96" length, 2 Beam Braces.



Steel Shelves

| Unit Depth | 48" Wide | | 60" Wide | | 72" Wide | | 84" Wide | | 96" Wide | |
|------------|----------|------------|----------|------------|----------|------------|----------|------------|----------|------------|
| | Cat. No. | Capacity * |
| 18" | 22418C | 1200 lb | 22518C | 1200 lb | 22618C | 1000 lb | 22718C | 800 lb | 22818C | 600 lb |
| 24" | 22424C | 1500 lb | 22524C | 1200 lb | 22624C | 1000 lb | 22724C | 800 lb | 22824C | 600 lb |
| 30" | 22430C | 2300 lb | 22530C | 1800 lb | 22630C | 1500 lb | 22730C | 1200 lb | 22830C | 900 lb |
| 36" | 22436C | 2400 lb | 22536C | 2400 lb | 22636CC | 2000 lb | 22736C | 1600 lb | 22836C | 1200 lb |
| 42" | 22442C | 2000 lb | 22542C | 2000 lb | 22642C | 2000 lb | 22742C | 1600 lb | 22842C | 1200 lb |
| 48" | 22448C | 1800 lb | 22548C | 1800 lb | 22648C | 1800 lb | 22748C | 1600 lb | 22848C | 1200 lb |

* NOTE: Shelf capacities in pounds, evenly distributed.

Wide Span

Specifications



COMPONENTS

Upright Frames: Penco Wide Span Upright Frames are made from heavy gauge steel, MIG welded into one rigid assembly containing posts, diagonal and horizontal braces and foot plates. There is no assembly required. Many sizes are available. Posts are punched on the face to provide positive independent beam placement on 2" vertical centers. The posts are marked on 12" centers to facilitate placement of shelf levels. A slot on each side of the post accepts a nib on the end of each beam, to lock it in place. Frames have a capacity of 7,500 pounds with a 1.92 safety factor where vertical beam spacing does not exceed 60".

Rigidity Beams: Rigidity beams provide lateral stability for the shelving; a minimum of two pairs of beams is required per unit. They are constructed of 3" high steel channels with return flanges and a beam end connector welded to each end. Beams are supplied in even foot lengths from 4' through 8'. Clearance between upright frames is 1/4" more than stated beam size. If the beams are being used as load bearing members, then Beam Braces are required. All Wide Span Beams have a patented Beam Lock that secures the beam end to the upright post to retard accidental beam dislodging. An embossed nib on the beam end engages a slot on the side on the upright post, which holds the beam end tight against the post (U. S. Patent No. 4,928,834). Can be disengaged with a mallet. It is normally not necessary to place rigidity beams beneath each steel shelf.

Steel Shelves: Penco Steel Wide Span Shelves are the ultimate in providing a smooth, safe surface for storing a wide variety of items. They are 1-3/4" high and feature double flanges at front and rear edges with a full width reinforcing pan welded to the center of the bottom. Each shelf requires a pair of Side Shelf Supports, which must be ordered separately. For 36", 42" and 48" depths, the appropriate number of 18" and 24" deep shelves are provided, and are installed together on the Side Shelf Supports to achieve the stated depth.

Side Shelf Supports: Heavy gauge steel angles which support steel shelves. Each support engages the upright frame at four points. One or more tangs stamped into the surface engages the reinforcing pan on the shelf bottom to prevent accidental dislodging of the shelf. One pair is required for each steel shelf.

Rigid Wall Brackets: Used to fasten upright frames to the wall for sturdy single row applications. Includes hardware to fasten to frame.

Rigid Row Spacers: Used to space and join back-to-back shelving units. Adds rigidity to double row applications. Includes hardware.

PLYWOOD USED IN LIEU OF STEEL SHELVES: Special beams and supports are used when plywood, pressed wood, particle board, oriented strand board or other composition type panels are used in place of steel shelves (these deck materials must be purchased separately). Two beam types are available: Standard Plywood Beams, and Heavy Duty Plywood Beams. Each is manufactured an extra 1/2" long to facilitate placement of full foot lengths of decking. Each uses a different type of front to back support for the decking material. Neither can be used in the same unit or bay with standard rigidity beams, because the lengths are different.

Standard Plywood Beams: Designed to support 1/2" thick deck material flush with top of beam flange when used with the appropriate number of Plywood Support Angles (ordered separately) which insert into slots in beam step. Overall height is 3-1/2". Beam step is 1-1/2" deep by 5/8" high. A 48" deep deck will fit between beams without trimming when a 48" deep upright frame is used.

Heavy Duty Plywood Beams: These beams can support a greater load than Standard Plywood Beams, and have a flush front facing the aisle. Requires the use of Beam Brace/Heavy Duty Plywood Supports which are ordered separately. A full 48" x 96" deck will fit on a pair of 96-1/2" beams when 50" deep upright frames are used. Heavy Duty Plywood Beams can be used in the same unit or bay with Standard Plywood Beams, however the depth of the decking material must be trimmed for the heavy duty beams (i.e. deck must be trimmed to 2" less depth than the depth of the upright frame.)

Standard Plywood Support Angles: Standard Plywood Support Angles fit into the slots in the beam step of Standard Plywood Beams. Order separately from beams. Order two per pair of 48-1/2" & 60-1/2" beams; three for 72-1/2" & 84-1/2" beams; four for 96-1/2" beams.

Beam Brace/Heavy Duty Plywood Support: This item fits easily into the inside of the beam opening and has two functions: A) When Rigidity Beams are used as load bearing members, the Beam Braces are used to keep the beams from twisting; B) When used with Heavy Duty Plywood Beams they are used as Plywood supports. Use a minimum of two supports per pair of beams. Use more if required by your load condition.

PENCO RESERVES THE RIGHT TO VARY SPECIFICATIONS
CONSISTENT WITH A POLICY OF CONTINUOUS PRODUCT
IMPROVEMENT.

RivetRite Universal Shelf Framing System

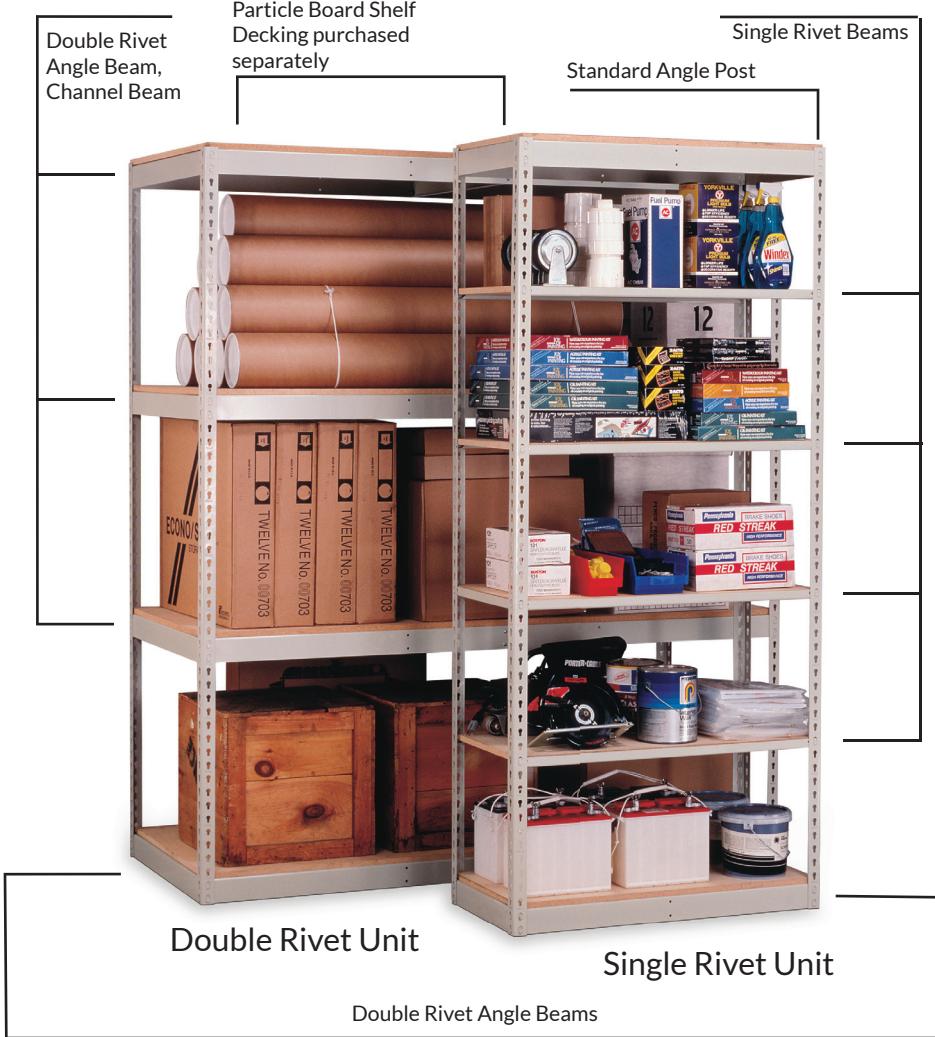
We call RivetRite the Universal Shelf Framing System because so many storage requirements can be met with only a few simple components. RivetRite is engineered to provide safe, economical storage of virtually any type of hand-loaded material. Structural integrity is ensured by a rigid boltless connection between beams and posts.

RivetRite offers the following to help solve your storage problems:

- Economical – your shelving dollar goes a long way
- Easy assembly without special tools - all you need is a rubber mallet to assemble most units
- Access to contents from all four sides - no braces to get in the way
- Shelves adjustable on 1-1/2" centers- allows you to custom design unit to fit your load size
- A variety of beams to accomodate a wide range of loads - you buy the capacity you need
- Finished in durable powder coat enamel - baked on for permanence. Available in 028 Gray or 723 Light Putty
- Order by pre-configured UNITS or by individual components

Components

RivetRite shelving is comprised of 4 types of posts for the vertical members and various horizontal support members. In this way it is possible to order by components to tailor the shelving to the items to be stored.



Horizontal Support Members

Single Rivet Shelf Beam

Double Rivet Angle Beam

Channel Beam

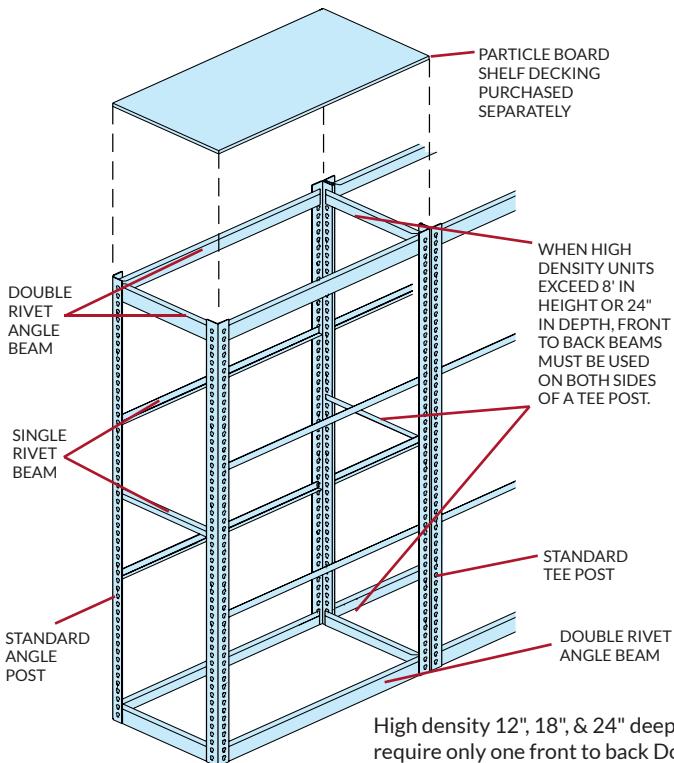
Center Support



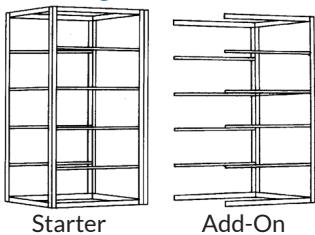
(Double Rivet Beams are ALWAYS used for the full perimeter at the TOP and BOTTOM of ALL Units)

Single Rivet High Density Units

Single Rivet high density shelving uses single rivet beams on intermediate levels, and double rivet beams at the top and bottom for rigidity. For units up to 48" wide.



Single Rivet Units



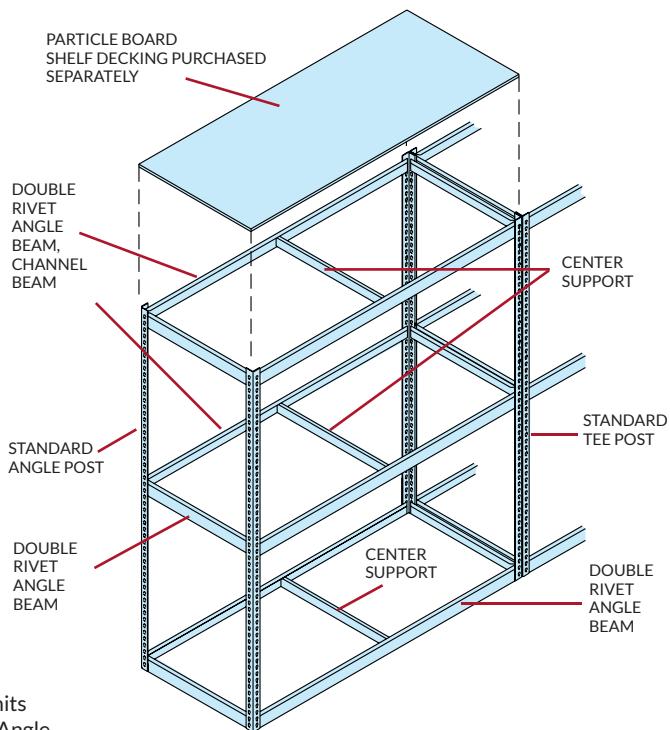
Starter and Add-On units are combined to form economical rows of shelving. Each Add-On unit includes a pair of tee posts which are used in common between units. This reduces assembly time and the number of parts required. Begin each row with two angle posts from the starter unit and join the desired number of add-on units to complete the row. Finish the last unit with a pair of angle posts from the starter unit. All dimensions in the tables are in inches and are subject to change without notice.

Steps for Selecting Your RivetRite® Units

1. Review the catalog and decide what type of unit will meet your requirement.
2. Determine the shelf size desired and select the capacity needed. Note the capacity shown is for the steel structure only.
3. Next determine the type of shelf deck material and calculate the quantity. Note that none of the unit catalog numbers include decking. Decking must be purchased separately.
4. All starter units are furnished with four Angle Posts. Add-on units have two intermediate Tee Posts. When assembling units, always

Double Rivet Bulky Storage Units

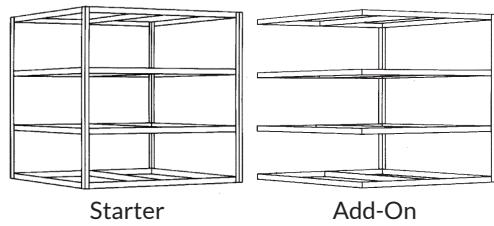
Double Rivet bulky storage units use double rivet for strength and rigidity. For units up to 96" wide.



Starters and Adders



Double Rivet Units



put the Angle Posts at the extreme ends of the shelving row. Note that shelving growth will always occur; see Growth Chart on pg. 33.

5. When ordering piece parts from the Component Parts pages of the catalog, contact your Penco representative for guidance on piece part capacities and product application to ensure structural integrity.



RivetRite® Shelving

Single Rivet Units: Up to 48" Wide

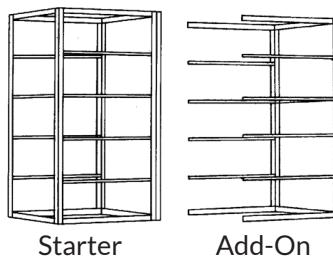
Single Rivet High Density Units

Single Rivet High Density shelving uses single rivet beams on intermediate levels, and double rivet beams on all four sides at the top and bottom for rigidity. For units up to 48" wide.

Starter and add-on units are combined to form economical rows of shelving. Each add-on unit includes a pair of tee posts which are used in common between units. This reduces assembly time and the number of parts required. Begin each row with two angle posts from the starter unit and join the desired number of add-on units to complete the row. Finish the last unit with a pair of angle posts from the starter unit.

All intermediate shelves on units that exceed 24" deep utilize single rivet beams for front to back shelf deck support.

Units 12", 18" and 24" deep include one pair of single rivet beams for intermediate use front to back.



- High Density Single Rivet Shelf Beams provide maximum space between shelf levels
- Common tee posts between starter and add-on unit
- Shelf levels adjust on 1-1/2" centers
- Fast easy assembly
- No special tools needed
- Optional heavy duty single rivet shelf beams available for added capacity



* Capacities shown are for the steel support beams, not the shelf deck material. For higher support beam capacity, see "RivetRite Components".

Capacities are in pounds for evenly distributed loads. All unit catalog numbers include metal framing only. Shelf deck material must be ordered separately.

Single Rivet High Density Units (84" High)

| Unit Width | Shelf Depth | Shelf Capacity* | 5 Shelf Cat. No. | 6 Shelf Cat. No. | 7 Shelf Cat. No. | 8 Shelf Cat. No. |
|-------------------|-------------|-----------------|------------------|------------------|------------------|------------------|
| 36" Starter Units | 12" | 350 | 461315 | 461316 | 461317 | 461318 |
| | 18" | 350 | 461325 | 461326 | 461327 | 461328 |
| | 24" | 350 | 461335 | 461336 | 461337 | 461338 |
| | 36" | 350 | 461345 | 461346 | 461347 | 461348 |
| 36" Add-On Units | 12" | 350 | 462355 | 462356 | 462357 | 462358 |
| | 18" | 350 | 462365 | 462366 | 462367 | 462368 |
| | 24" | 350 | 462375 | 462376 | 462377 | 462378 |
| | 36" | 350 | 462385 | 462386 | 462387 | 462388 |
| 48" Starter Units | 12" | 250 | 461415 | 461416 | 461417 | 461418 |
| | 18" | 250 | 461425 | 461426 | 461427 | 461428 |
| | 24" | 250 | 461435 | 461436 | 461437 | 461438 |
| | 36" | 250 | 461445 | 461446 | 461447 | 461448 |
| 48" Add-On Units | 12" | 250 | 462455 | 462456 | 462457 | 462458 |
| | 18" | 250 | 462465 | 462466 | 462467 | 462468 |
| | 24" | 250 | 462475 | 462476 | 462477 | 462478 |
| | 36" | 250 | 462485 | 462486 | 462487 | 462488 |

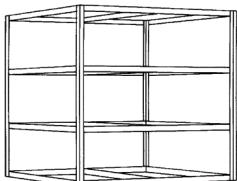
RivetRite® Shelving

Double Rivet Units: Up to 96" Wide

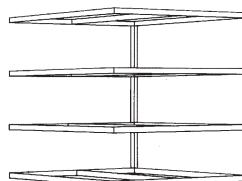


Double Rivet Units

Double Rivet Units use the same posts and top and bottom perimeter beams as single rivet units, however all intermediate beams are of double rivet construction. Units are either 84" or 120" high. Some units have center supports for higher capacity and some units have channel beams in place of angle beams for heavier loads.



Starter



Add-On



*Capacities shown are for the steel support beams, not the shelf deck material. For higher support beam capacity, see "RivetRite Components".

Capacities are in pounds for evenly distributed loads. All unit catalog numbers include metal framing only. Shelf deck material must be ordered separately.

All Double Rivet Bulky Storage Units with Channel Beams are furnished with Heavy Duty Double Rivet Angle Beams (left to right) at the bottom level.

(1) - Max. Average Shelf Load 2000# per shelf. (2) - Max. Shelf Load 1490# per shelf.

| Double Rivet Bulky Storage Units (With 4 Shelves - 84" High) | | | | | | | | |
|--|------------------|-------------|------------------------|------------------|-----------------|---------------------|------------------|-----------------|
| Unit Width | Beam Type | Shelf Depth | WITHOUT Center Support | | | WITH Center Support | | |
| | | | Shelf Capacity* | Starter Cat. No. | Add-On Cat. No. | Shelf Capacity* | Starter Cat. No. | Add-On Cat. No. |
| 48" Wide Units | Heavy Duty Angle | 18" | 750 | 46001H | 46006H | 1400 | 46W01H | 46W06H |
| | | 24" | 750 | 46002H | 46007H | 1400 | 46W02H | 46W07H |
| | | 30" | 750 | 46003H | 46008H | 1310 | 46W03H | 46W08H |
| | | 36" | 750 | 46004H | 46009H | 1220 | 46W04H | 46W09H |
| | | 48" | 750 | 46005H | 46010H | 1125 | 46W05H | 46W10H |
| 60" Wide Units | Heavy Duty Angle | 18" | 600 | 46011H | 46016H | 1200 | 46W11H | 46W16H |
| | | 24" | 600 | 46012H | 46017H | 1200 | 46W12H | 46W17H |
| | | 30" | 600 | 46013H | 46018H | 1200 | 46W13H | 46W18H |
| | | 36" | 600 | 46014H | 46019H | 1200 | 46W14H | 46W19H |
| | | 48" | 600 | 46015H | 46020H | 1200 | 46W15H | 46W20H |
| 72" Wide Units | Heavy Duty Angle | 18" | - | - | - | 2240 (1) | 46W01C | 46W06C |
| | | 24" | - | - | - | 2240 (1) | 46W02C | 46W07C |
| | | 30" | - | - | - | 2240 (1) | 46W03C | 46W08C |
| | | 36" | - | - | - | 2240 (1) | 46W04C | 46W09C |
| | | 48" | - | - | - | 2240 (1) | 46W05C | 46W10C |
| 96" Wide Units | Heavy Duty Angle | 18" | 500 | 46021H | 46026H | 1000 | 46W21H | 46W26H |
| | | 24" | 500 | 46022H | 46027H | 1000 | 46W22H | 46W27H |
| | | 30" | 500 | 46023H | 46028H | 1000 | 46W23H | 46W28H |
| | | 36" | 500 | 46024H | 46029H | 1000 | 46W24H | 46W29H |
| | | 48" | 500 | 46025H | 46030H | 1000 | 46W25H | 46W30H |
| 96" Wide Units | Channel | 18" | - | - | - | 1850 | 46W11C | 46W16C |
| | | 24" | - | - | - | 1850 | 46W12C | 46W17C |
| | | 30" | - | - | - | 1850 | 46W13C | 46W18C |
| | | 36" | - | - | - | 1850 | 46W14C | 46W19C |
| | | 48" | - | - | - | 1850 | 46W15C | 46W20C |
| 96" Wide Units | Heavy Duty Angle | 18" | - | - | - | 620 | 46W31H | 46W36H |
| | | 24" | - | - | - | 620 | 46W32H | 46W37H |
| | | 30" | - | - | - | 620 | 46W33H | 46W38H |
| | | 36" | - | - | - | 620 | 46W34H | 46W39H |
| | | 48" | - | - | - | 620 | 46W35H | 46W40H |
| 96" Wide Units | Channel | 18" | - | - | - | 1400 | 46W21C | 46W26C |
| | | 24" | - | - | - | 1400 | 46W22C | 46W27C |
| | | 30" | - | - | - | 1400 | 46W23C | 46W28C |
| | | 36" | - | - | - | 1400 | 46W24C | 46W29C |
| | | 48" | - | - | - | 1400 | 46W25C | 46W30C |

| Double Rivet Bulky Storage Units (With 5 Shelves - 120" High) | | | | | | | | |
|---|------------------|-------------|------------------------|------------------|-----------------|---------------------|------------------|-----------------|
| Unit Width | Beam Type | Shelf Depth | WITHOUT Center Support | | | WITH Center Support | | |
| | | | Shelf Capacity* | Starter Cat. No. | Add-On Cat. No. | Shelf Capacity* | Starter Cat. No. | Add-On Cat. No. |
| 72" Wide Units | Heavy Duty Angle | 30" | 500 | 46041H | 46044H | 1000 | 46W41H | 46W44H |
| | | 36" | 500 | 46042H | 46045H | 1000 | 46W42H | 46W45H |
| | | 48" | 500 | 46043H | 46046H | 1000 | 46W43H | 46W46H |
| | | 30" | - | - | - | 1850 (2) | 46W31C | 46W34C |
| | | 36" | - | - | - | 1850 (2) | 46W32C | 46W35C |
| 96" Wide Units | Heavy Duty Angle | 30" | - | - | - | 1850 (2) | 46W33C | 46W36C |
| | | 36" | - | - | - | 620 | 46W47H | 46W50H |
| | | 48" | - | - | - | 620 | 46W48H | 46W51H |
| | | 30" | - | - | - | 1400 | 46W49H | 46W52H |
| | | 36" | - | - | - | 1400 | 46W37C | 46W40C |
| 96" Wide Units | Channel | 36" | - | - | - | 1400 | 46W38C | 46W41C |
| | | 48" | - | - | - | 1400 | 46W39C | 46W42C |

*Capacities shown are for the steel support beams, not the shelf deck material. For higher support beam capacity, see "RivetRite Components".

Capacities are in pounds for evenly distributed loads. All unit catalog numbers include metal framing only. Shelf deck material must be ordered separately.

All Double Rivet Bulky Storage Units with Channel Beams are furnished with Heavy Duty Double Rivet Angle Beams (left to right) at the bottom level.

(1) - Max. Average Shelf Load 2000# per shelf. (2) - Max. Shelf Load 1490# per shelf.

RivetRite® Shelving

Record Storage Shelving



80 Box Unit with Decking
Cat. No. 46604A
(Order decking separately)
(Boxes are not included)

Keep Your Records Organized!

- Assembles without special tools
- Records can be retrieved from both sides
- Units can be added as needed
- 42" wide units hold 3 boxes across
- 69" wide units hold 5 boxes across
- Various unit heights are available

Record Storage Units

RivetRite Record Storage Units aid in records management by providing an organized solution for high density archive storage applications.

Add-on units utilize a common Tee Post between units to save time during assembly.

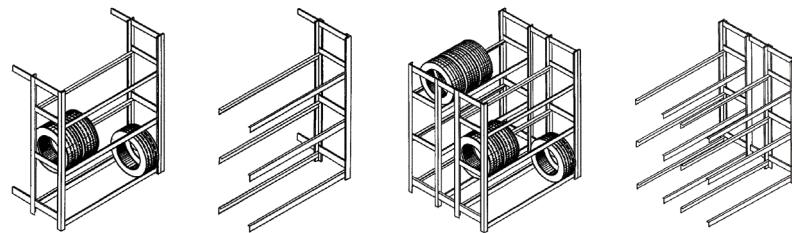
| Record Storage Units | | | | | | |
|---|------|------|----------------|---------------|------------------|-----------------|
| For Use With Decking (order deck material separately) | | | | | | |
| Unit Width | Unit | Unit | No. of Shelves | No. of Boxes* | Starter Cat. No. | Add-On Cat. No. |
| 42" | 15" | 84" | 4 | 24 | 46601A | 46613A |
| 42" | 30" | 84" | 4 | 48 | 46602A | 46614A |
| 69" | 15" | 84" | 4 | 40 | 46603A | 46615A |
| 69" | 30" | 84" | 4 | 80 | 46604A | 46616A |
| 42" | 15" | 108" | 5 | 30 | 46605A | 46617A |
| 42" | 30" | 108" | 5 | 60 | 46606A | 46618A |
| 69" | 15" | 108" | 5 | 50 | 46607A | 46619A |
| 69" | 30" | 108" | 5 | 100 | 46608A | 46620A |

Inventory Systems



Tire Storage Rack

Penco RivetRite® Tire Racks provide for the neat organized storage of standard automobile or light truck tires. Specially designed beams with a 30° flange on the top securely cradle the tires. Available in Single-Row, (12" deep units with 9" Wall Ties) and Double-Row, (two 12" deep units separated by 18" Double Row Spacers). Unit depth shown includes wall ties/row spacers. Deeper units are available to accommodate larger SUV tires.



Single Row Starter Single Row Add-On Double Row Starter Double Row Add-On

Tire Rack Upright Frames

| Unit Width | Unit Depth | Unit Height | Basic Unit Cat. |
|--------------------------|------------|-------------|-----------------|
| Single Row Starter Units | | | |
| 60" | 24" | 84" | 46361TP |
| 60" | 24" | 120" | 46362TP |
| Single Row Add-On Units | | | |
| 60" | 24" | 84" | 46461TP |
| 60" | 24" | 120" | 46462TP |
| Double Row Starter Units | | | |
| 60" | 48" | 84" | 46655TP |
| 60" | 48" | 120" | 46656TP |
| Double Row Add-On Units | | | |
| 60" | 48" | 84" | 46665TP |
| 60" | 48" | 120" | 46456TP |

Passenger Tire Storage Rack

| Single Row | | | | | | |
|------------|------------|-------------|---------------|----------------|------------------|-----------------|
| Unit Width | Unit Depth | Unit Height | No. of Levels | Tire Capacity* | Starter Cat. No. | Add-On Cat. No. |
| 60" | 21" | 84" | 3 | 24 | 46351C | 46451C |
| 60" | 21" | 120" | 4 | 32 | 46352C | 46452C |
| Double Row | | | | | | |
| Unit Width | Unit Depth | Unit Height | No. of Levels | Tire Capacity* | Starter Cat. No. | Add-On Cat. No. |
| 60" | 42" | 84" | 3 | 48 | 46355C | 46455C |
| 60" | 42" | 120" | 4 | 64 | 46356C | 46456C |

NOTE: Tire rack capacities are based on average passenger tire sizes.

** Supplied with Heavy Duty Posts.



Muffler Storage Unit

Provides sturdy storage for mufflers or other inventory items. All double rivet beam construction. Available in 48" and 96" widths in both starter and add-on configurations.

Muffler Storage Units

| Unit Width | Unit Depth | Unit Height | Starter Cat. No. | Add-On Cat. No. |
|------------|------------|-------------|------------------|-----------------|
| 48" | 36" | 84" | 46801M | 46803M |
| 96" | 36" | 84" | 46802M | 46804M |



Hanging Tailpipe Rack

Designed specifically for the storage of automotive and light truck tailpipes. Assembles in minutes without special tools. Stored items are visible and easily accessible. Hanging hooks are not provided by Penco.

Hanging Tailpipe Rack

| Clear Span | Unit Depth | Unit Height | Cat. No. |
|------------|------------|-------------|----------|
| 48" | 18" | 120" | 46901P |
| 96" | 18" | 120" | 46902P |

Components

Posts

Angle Posts

Standard Duty Angle:

1-1/2" x 1-1/2". Used as upright post for standard RivetRite units. All Angle Posts allow for beam adjustments on 1-1/2" centers.

Heavy Duty Angle:

1-7/8" x 1-7/8". When greater capacity and stability are essential, the heavy duty angle post is the proper choice. Ideally suited for two level shelving, storage deck and high rise shelving applications.



Tee Posts Standard Duty Tee:

3" x 1-1/2". Included with standard duty add-on units to function as a common post between the starter unit and adjoining units. All Tee Posts allow for beam adjustment on 1-1/2" centers.

Heavy Duty Tee:

3-3/4" x 1-7/8". Used in the same way as the standard tee, when increased load capacities are required.

| RivetRite® Posts | | | |
|------------------|------|-------------------|-------------------|
| Item Desc. | Size | Standard Cat. No. | Hvy Duty Cat. No. |
| Angle Posts | 36" | 46AS03C | - |
| | 48" | 46AS04C | - |
| | 60" | 46AS05C | - |
| | 72" | 46AS06C | - |
| | 84" | 46AS07C | - |
| | 96" | 46AS08C | 46AH08C |
| | 108" | 46AS09C | |
| | 120" | 46AS10C | 46AH10C |
| Tee Posts | 36" | 46TS03C | - |
| | 48" | 46TS04C | - |
| | 60" | 46TS05C | - |
| | 72" | 46TS06C | - |
| | 84" | 46TS07C | |
| | 96" | 46TS08C | 46TH08C |
| | 108" | 46TS09C | |
| | 120" | 46TS10C | 46TH10C |

Beams

Single Rivet Shelf Beams Standard Duty Single Rivet "SS":

Primarily used as an intermediate shelf support when maximum vertical space between levels is needed. Furnished as standard on High Density Shelving units.

Heavy Duty Single Rivet "HS":

Manufactured to provide greater capacity with very little loss of usable vertical space between shelves.

Double Rivet Angle Beams Standard Duty "SB":

Used to establish unit stability and to provide shelf support on all four sides.

RivetRite® Shelving

Components

Heavy Duty "HB":

Provides stability and increased load capacity in the longer lengths.

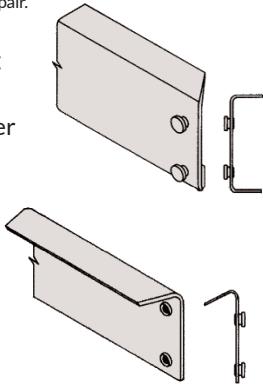
| RivetRite® Beams | | | |
|--------------------------|------|-------------------|-------------------|
| Item Desc. | Size | Standard Cat. No. | Hvy Duty Cat. No. |
| Single Rivet Shelf Beams | 12" | 46SS12C | - |
| | 15" | 46SS15C | - |
| | 18" | 46SS18C | - |
| | 24" | 46SS24C | - |
| | 30" | 46SS30C | - |
| | 36" | 46SS36C | |
| | 42" | 46SS42C | |
| | 48" | 46SS48C | 46HS48C** |
| Double Rivet Angle Beams | 12" | 46SB12C | - |
| | 15" | 46SB15C | - |
| | 18" | 46SB18C | - |
| | 24" | 46SB24C | - |
| | 30" | 46SB30C | - |
| | 36" | 46SB36C | - |
| | 42" | 46SB42C | - |
| | 48" | - | 46HB48C |
| | 60" | - | 46HB60C |
| | 69" | - | 46HB69C |
| | 72" | - | 46HB72C |
| | 84" | - | 46HB84C |
| | 96" | - | 46HB96C |

* Heavy Duty 36" support beam capacity is 600 lb. per pair.

** Heavy Duty 48" support beam capacity is 500 lb. per pair.

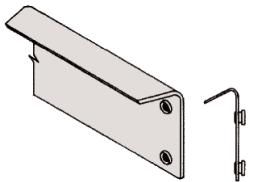
Double Rivet Channel Beams "CB":

3" x 1". Channel is designed to provide maximum left to right stability and higher capacity than standard or heavy duty beams. Cannot be used at floor level. The top flange has holes for fastening decking.

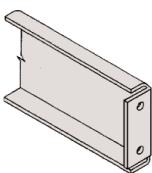


Tire Rack Beams "TB":

2-3/4" high - For left to right shelf support of tires. 30 degree angle on supporting edge of tire rack beam.



| Beams, Continued | | |
|---------------------------------|------|-------------------|
| Item Desc. | Size | Standard Cat. No. |
| Double Rivet Channel Beams "CB" | 60" | 46CB60C |
| | 72" | 46CB72C |
| | 84" | 46CB84C |
| | 96" | 46CB96C |
| Tire Rack Beams "TB" | 48" | 46TB48C |
| | 60" | 46TB60C |



Center Support:

Used with double rivet beams to provide front-to-rear support for shelf deck and provides added stability to beams. Hardware included.

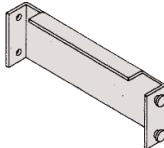


Post Splice:

1-3/8" x 1-3/8". Used to extend posts. Order one per angle post. Order two per tee post. Note: installs on the outside of the post.

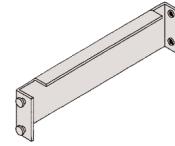
Beams, Center Supports & Splice

| Item Desc. | Size | Standard Cat. No. |
|------------------------------|-----------------|-------------------|
| Center Support with Hardware | 12" | 46CS12 |
| | 15" | 46CS15 |
| | 18" | 46CS18 |
| | 24" | 46CS24 |
| | 30" | 46CS30 |
| | 36" | 46CS36 |
| | 42" | 46CS42 |
| | 48" | 46CS48 |
| Post Splice | 1-3/8" x 1-3/8" | 46PS0H |



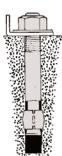
Wall Tie:

Used to secure units to wall and provide space between wall and attached units. Hardware is not included.



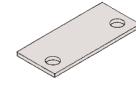
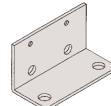
Double Row and Top Ties:

Designed to space back-to-back units and to top-tie rows across aisles for additional stability.



Concrete Anchors:

Used to secure posts to the floor (foot plates are used). Available in 2 lengths; the 2-1/4" length is sufficient for most usage, but areas with a high seismic rating may require the 3-3/4" length #9281.



Foot Plate & Shim:

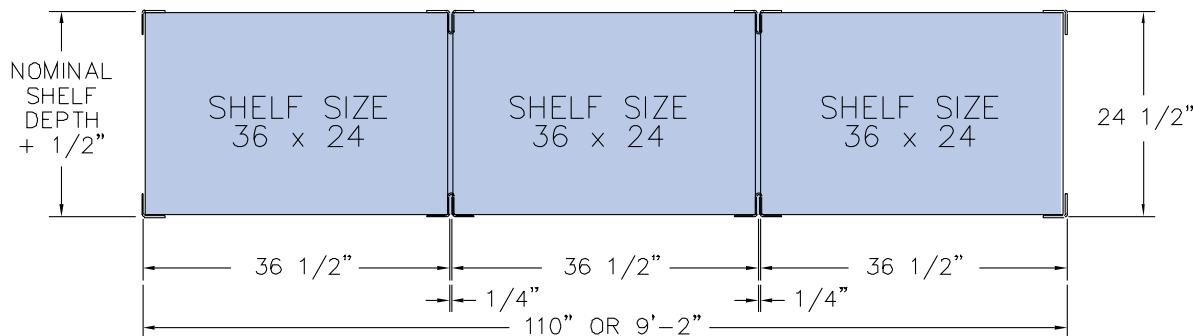
Foot Plate includes hardware, for anchoring angle and tee posts to the floor. NOTE: Foot plate cannot be used if there is a double rivet channel beam at the lowest point. Hardware to attach to post anchor is ordered separately.

Shim (14 ga.) is for placement beneath footplate if floor is uneven.

| Ties and Anchors | | |
|-------------------------|---------------|---------------|
| Description | Size | Std. Cat. No. |
| Wall Tie | 9-1/4" | 46WT09C |
| Double Row and Top Ties | 18-1/4" | 46RT18C |
| | 3/8" x 2-1/4" | 9280 |
| Concrete Anchors | 3/8" x 3-3/4" | 9281 |
| | - | 46FPOH |
| Foot Plate | 3-1/2" x 2" | 46FPS00Z |
| Shim (plated) | - | - |

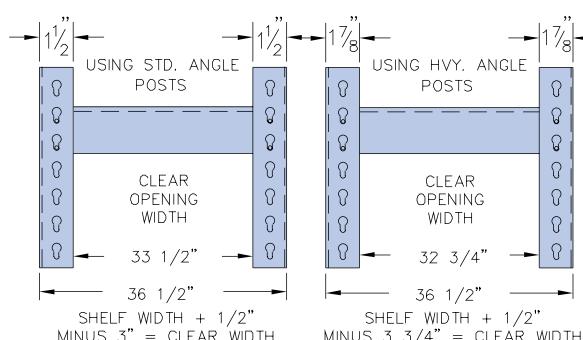
Unit Growth Chart

WHEN DESIGNING A SHELVING LAYOUT, UNIT GROWTH MUST BE CONSIDERED. TO DETERMINE THE OVERALL DIMENSION OF A CONTINUOUS ROW OF SHELVING EMPLOYING TEE POSTS OR ANGLE POST WITH TIE PLATES.

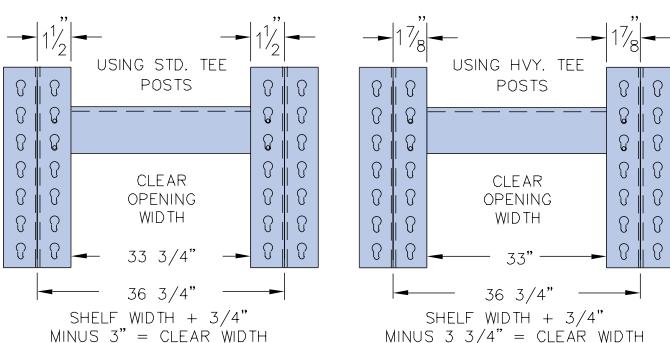
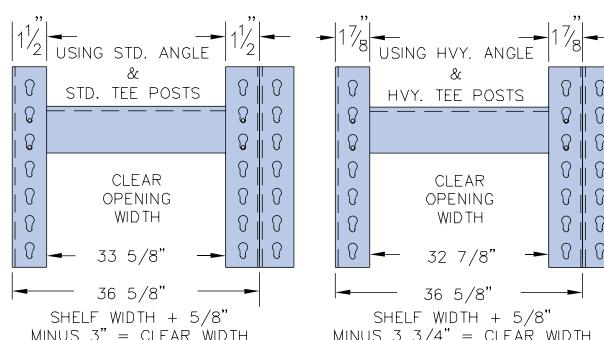
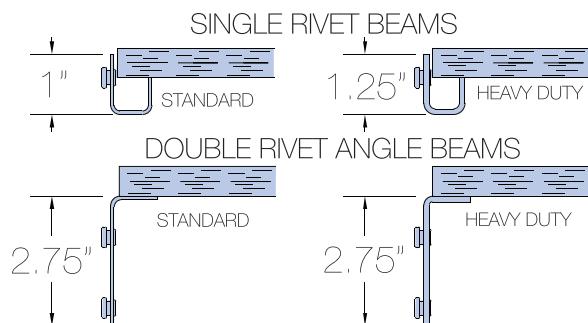


Unit Clear Width

EXAMPLES BELOW ARE BASED ON 36" WIDE SHELF



Beam Profiles



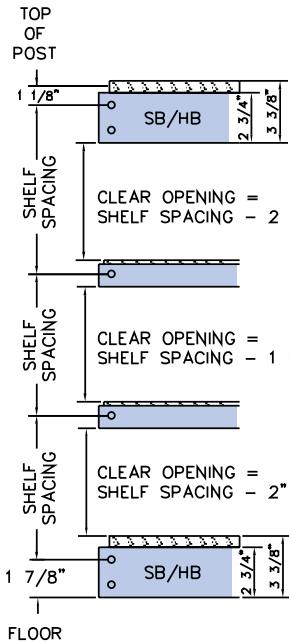
RivetRite® Shelving

Technical Information - Vertical Clear Openings

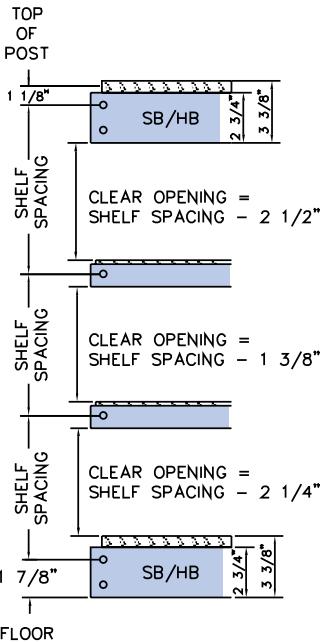
Vertical Clear Opening Using 5/8" Shelf Deck Material

UNITS USING SINGLE RIVET SHELF BEAMS

UNITS WITH STANDARD DUTY SINGLE RIVET BEAMS (DBL. RIVET AT TOP and BOTTOM)



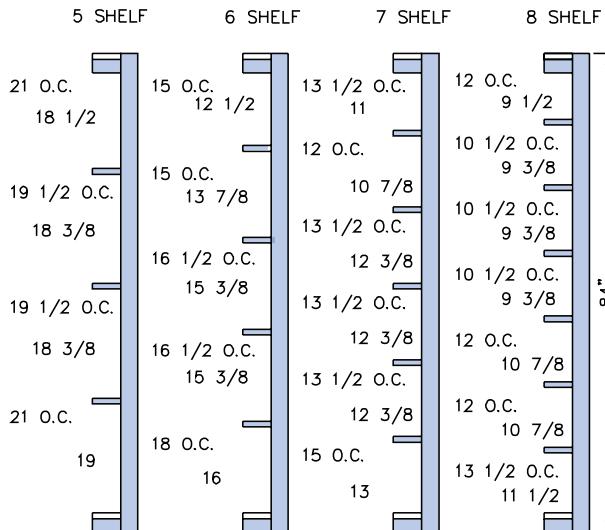
UNITS WITH HEAVY DUTY SINGLE RIVET BEAMS (DBL. RIVET AT TOP and BOTTOM)



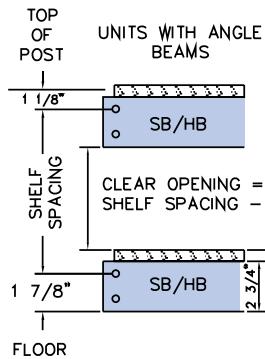
VERTICAL SHELF CLEARANCE

THIS CHART DEPICTS SHELF CLEARANCES FOR TYPICAL RIVET RITE SHELVING UNITS WITH 1 1/2" VERTICAL SHELF ADJUSTMENT.

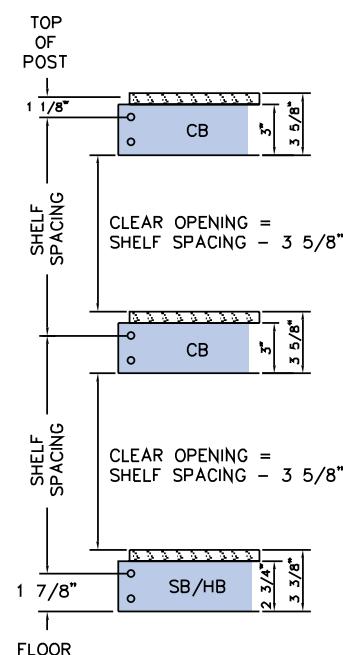
SINGLE RIVET HIGH DENSITY SHELVING UNITS



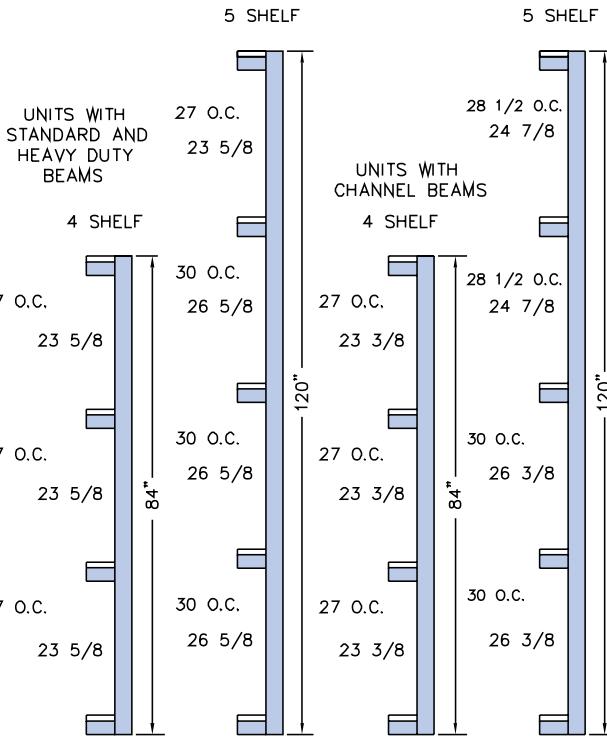
UNITS USING ANGLE AND CHANNEL BEAMS



UNITS WITH ANGLE BEAMS AND CHANNEL BEAMS



DOUBLE RIVET BULKY SHELVING UNITS



QuickShip Components

RivetRite® QuickShip Shelving Components

If you prefer to order RivetRite by its individual component, you can obtain many of the most popular sizes and accessories through the QuickShip program. By mixing beam sizes, you can create some sizes that are not available as pre-configured units on the previous page.

For detailed descriptions of components, see pages 31-32. All RivetRite QuickShip items are finished in 723 Light Putty powder coat paint. See beam capacities on page 37.

Shelf deck material is not available in the QuickShip program. It must be obtained outside the QuickShip program or purchased locally. Partical board not available through Penco. For cutting your own board, use the nominal shelf deck size and cut +0", -1/8".

| RivetRite® Beams | | |
|--|------|----------|
| Item | Size | Cat. No. |
| Single Rivet Shelf Beams "SS" & "HS"* | 12" | 46SS12P |
| | 18" | 46SS18P |
| | 24" | 46SS24P |
| | 30" | 46SS30P |
| | 36" | 46SS36P |
| | 42" | 46SS42P |
| | 48" | 46SS48P |
| | 48" | 46HS48P* |
| Double Rivet Angle Beams "SB" & "HB"* | 12" | 46SB12P |
| | 15" | 46SB15P |
| | 18" | 46SB18P |
| | 24" | 46SB24P |
| | 30" | 46SB30P |
| | 36" | 46SB36P |
| | 42" | 46SB42P |
| | 48" | 46HB48P* |
| | 72" | 46HB72P* |
| | 96" | 46HB96P* |

| RivetRite® Posts | | |
|------------------|------|----------|
| Item | Size | Cat. No. |
| Angle Posts | 72" | 46AS06P |
| | 84" | 46AS07P |
| | 96" | 46AS08P |
| Tee Posts | 72" | 46TS06P |
| | 84" | 46TS07P |
| | 96" | 46TS08P |

| Miscellaneous Accessories | | | |
|---------------------------|---------------|------|----------|
| | Item | Size | Cat. No. |
| Tie Plate | | - | 46TP00P |
| Foot Plate | | - | 46FP0H |
| Concrete Anchor | 3/8" x 2-1/4" | | 9280 |

| Center Supports | | | |
|------------------------------|------|------|----------|
| | Item | Size | Cat. No. |
| Center Support with Hardware | | 12" | 46CS12P |
| | | 15" | 46CS15P |
| | | 18" | 46CS18P |
| | | 24" | 46CS24P |
| | | 30" | 46CS30P |
| | | 36" | 46CS36P |
| | | 48" | 46CS48P |



RivetRite® Shelving

QuickShip Shelving

RivetRite® QuickShip Shelving Units

- Quick Shipment in attractive 723 Light Putty powder coat finish
- Economical
- Choice of beam types
- Accessibility on all four sides
- Beams adjust on 1-1/2" vertical centers
- Boltless construction for easy assembly
- Starter & Adder configurations with Angle & Tee Posts
- Accessories available: Anchors, Foot Plates, Tie Plates



NOTE: Shelf Deck material is NOT included with the units. You must obtain shelf deck material separately.

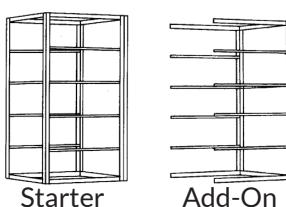
Single Rivet High Density Units (With Double Rivet Beams at Top/Bottom - 84" High)

| Unit Width | Shelf Depth | 5 Shelf Cat. No. | 6 Shelf Cat. No. | 7 Shelf Cat. No. | 8 Shelf Cat. No. |
|-------------------|-------------|------------------|------------------|------------------|------------------|
| 36" Starter Units | 12" | 461315P | 461316P | 461317P | 461318P |
| | 18" | 461325P | 461326P | 461327P | 461328P |
| | 24" | 461335P | 461336P | 461337P | 461338P |
| | 36" | 461345P | 461346P | 461347P | 461348P |
| 36" Add-On Units | 12" | 462355P | 462356P | 462357P | 462358P |
| | 18" | 462365P | 462366P | 462367P | 462368P |
| | 24" | 462375P | 462376P | 462377P | 462378P |
| | 36" | 462385P | 462386P | 462387P | 462388P |
| 48" Starter Units | 12" | 461415P | 461416P | 461417P | 461418P |
| | 18" | 461425P | 461426P | 461427P | 461428P |
| | 24" | 461435P | 461436P | 461437P | 461438P |
| | 36" | 461445P | 461446P | 461447P | 461448P |
| 48" Add-On Units | 12" | 462455P | 462456P | 462457P | 462458P |
| | 18" | 462465P | 462466P | 462467P | 462468P |
| | 24" | 462475P | 462476P | 462477P | 462478P |
| | 36" | 462485P | 462486P | 462487P | 462488P |

Touch Up Spray Paint - 12 oz.

Must be ordered with lockers, shelving, or RivetRite products.

723 Light Putty
97723Z



Double Rivet Bulky Storage Units (With 4 Shelves - 84" High)

| Unit Width | Shelf Depth | WITHOUT Center Support | | WITH Center Support | |
|----------------|-------------|------------------------|-----------------|---------------------|-----------------|
| | | Starter Cat. No. | Add-On Cat. No. | Starter Cat. No. | Add-On Cat. No. |
| 48" Wide Units | 18" | 46001HP | 46006HP | 46W01HP | 46W06HP |
| | 24" | 46002HP | 46007HP | 46W02HP | 46W07HP |
| | 30" | 46003HP | 46008HP | 46W03HP | 46W08HP |
| | 36" | 46004HP | 46009HP | 46W04HP | 46W09HP |
| | 48" | 46005HP | 46010HP | 46W05HP | 46W10HP |
| 60" Wide Units | 18" | 46011HP | 46016HP | 46W11HP | 46W16HP |
| | 24" | 46012HP | 46017HP | 46W12HP | 46W17HP |
| | 30" | 46013HP | 46018HP | 46W13HP | 46W18HP |
| | 36" | 46014HP | 46019HP | 46W14HP | 46W19HP |
| | 48" | 46015HP | 46020HP | 46W15HP | 46W20HP |
| 72" Wide Units | 18" | 46021HP | 46026HP | 46W21HP | 46W26HP |
| | 24" | 46022HP | 46027HP | 46W22HP | 46W27HP |
| | 30" | 46023HP | 46028HP | 46W23HP | 46W28HP |
| | 36" | 46024HP | 46029HP | 46W24HP | 46W29HP |
| | 48" | 46025HP | 46030HP | 46W25HP | 46W30HP |
| 96" Wide Units | 18" | - | - | 46W31HP | 46W36HP |
| | 24" | - | - | 46W32HP | 46W37HP |
| | 30" | - | - | 46W33HP | 46W38HP |
| | 36" | - | - | 46W34HP | 46W39HP |
| | 48" | - | - | 46W35HP | 46W40HP |

Double Rivet Bulky Storage Units (With 5 Shelves - 120" High)

| Unit Width | Shelf Depth | WITHOUT Center Support | | WITH Center Support | |
|----------------|-------------|------------------------|-----------------|---------------------|-----------------|
| | | Starter Cat. No. | Add-On Cat. No. | Starter Cat. No. | Add-On Cat. No. |
| 72" Wide Units | 30" | 46041HP | 46044HP | 46W41HP | 46W44HP |
| | 36" | 46042HP | 46045HP | 46W42HP | 46W45HP |
| | 48" | 46043HP | 46046HP | 46W43HP | 46W46HP |
| 96" Wide Units | 30" | - | - | 46W47HP | 46W50HP |
| | 36" | - | - | 46W48HP | 46W51HP |
| | 48" | - | - | 46W49HP | 46W52HP |

Archive Shelving Units (For Use with Decking - 84" High)

| Unit Width | Shelf Depth | 5 Shelf Cat. No. |
|-------------------|-------------|------------------|
| 42" Starter Units | 15" | 46601AP |
| | 30" | 46602AP |
| 42" Add-On Units | 15" | 46613AP |
| | 30" | 46614AP |
| 69" Starter Units | 15" | 46603AP |
| | 30" | 46604AP |
| 69" Add-On Units | 15" | 46615AP |
| | 30" | 46616AP |

RivetRite® Shelving

Capacities



| RivetRite Post Capacity Chart | | |
|---|-------------------------------------|---------------------------------------|
| Recommended safe loads (per post) for use only where seismic forces are not a factor. | | |
| Beam Spacing (inches) | Standard Angle Post Capacity (lbs.) | Heavy Duty Angle Post Capacity (lbs.) |
| 12 | 1530 | 1735 |
| 18 | 1520 | 1720 |
| 24 | 1510 | 1695 |
| 30 | 1490 | 1680 |
| 36 | 1350 | 1660 |
| 42 | 990 | 1560 |
| 48 | 755 | 1195 |
| Beam Spacing (inches) | Standard Tee Post Capacity (lbs.) | Heavy Duty Tee Post Capacity (lbs.) |
| 12 | 4725 | 5045 |
| 18 | 4510 | 4965 |
| 24 | 4210 | 4850 |
| 30 | 3825 | 4705 |
| 36 | 3350 | 4525 |
| 42 | 2795 | 4315 |
| 48 | 2180 | 4075 |
| For beam spacing over 48", please contact Penco. | | |

Post capacities are based on the maximum vertical distance between left to right beams or front to back beams, whichever is greater. In single rivet beam units, the vertical distance between front to back beams will usually govern.

Tie plates must be spaced no more than 48 inches apart to insure structural stability when joining angle posts together.

The above capacities are NOT intended for use when designing multi-level systems or for specific requirements where seismic forces are a factor. For specific multi-level or seismic requirements, contact your Penco District Manager.

| RivetRite Beam Capacities | | |
|--|------------------|------------------|
| Recommended Safe Use Allowable Uniformly Distributed Hand Loaded Static Beam Loads | | |
| Length (in.) | Cap./Pair (lbs.) | Deflection (in.) |
| Single Rivet Shelf Beams | | |
| Standard Beams | | |
| 36 | 350 | 0.25 |
| 42 | 300 | 0.30 |
| Heavy Duty Beams | | |
| 48 | 500 | 0.34 |
| Double Rivet Angle Beams | | |
| Standard Beams | | |
| Without Center Supports (***) | | |
| 36 | 1000 | *** |
| 42 | 780 | *** |
| Heavy Duty Beams | | |
| Without Center Supports (***) | | |
| 48 | 750 | *** |
| 60 | 600 | *** |
| 69 | 525 | *** |
| 72 | 500 | *** |
| With Center Supports (*) | | |
| 48 | 1400 | 0.16 |
| 60 | 1200 | 0.25 |
| 69 | 1050 | 0.33 |
| 72 | 1000 | 0.36 |
| 84 | 840 | 0.49 |
| 96 | 620 | 0.53 |
| Double Rivet Channel Beams | | |
| With Center Supports (*) | | |
| 60 | 2240 | 0.23 |
| 72 | 1850 | 0.33 |
| 84 | 1600 | 0.45 |
| 96 | 1400 | 0.59 |
| (*) One (1) support per pair of beams except 96' which have two (2) Supports | | |
| (***) Beam rotation is less than 5 degrees | | |



Components: Choose from a wide selection of component sizes and capacities to fit the storage requirements.

Angle Post: 1-1/2" x 1-1/2" (Standard Duty): Used as upright post for standard RivetRite units.

Angle Post: 1-7/8" x 1-7/8" (Heavy Duty): When maximum capacity and stability are essential, the heavy duty angle post is the proper choice. Ideally suited for two level shelving, storage deck and high rise shelving applications.

Tee Post: 3" x 1-1/2" (Standard Duty): Included with standard duty add-on units to function as a common post between starter and adjoining units.

Tee Post: 3-3/4" x 1-7/8" (Heavy Duty): Used in the same way as the standard tee, when increased load capacities are required.

Single Rivet Shelf Beam (Standard Duty): Primarily used as an intermediate shelf support when maximum vertical space between levels is needed. Furnished as standard on High Density Shelving units.

Single Rivet Shelf Beam (Heavy Duty): Manufactured to provide maximum capacity with very little loss of usable vertical space between shelves.

Double Rivet Shelf Beam (Standard Duty): Used to establish unit stability and to provide shelf support on all four sides.

Double Rivet Shelf Beam (Heavy Duty): Provides stability and increased load capacity in the longer lengths.

Double Rivet Channel Beam: Designed to provide maximum left to right stability and higher capacity than standard or heavy duty beams. Cannot be used at floor level.

Center Support: Used with double rivet beams to provide front-to-rear support for shelf deck and provides added stability to beams.

TYPES OF UNITS: RivetRite Units come in two basic types: Single Rivet Units and Double Rivet Units. These utilize different combinations of beam types. In addition, units for special purposes include Records Storage Units and Automotive Parts Storage Units.

Double Rivet Bulky Storage Units: 48" to 96" wide beams Access to stored items from all sides Choice of beam capacity to meet your storage requirement Easy assembly without special tools Units available in 84" and 120" heights. Penco RivetRite bulky shelving is designed to provide an economical solution for the storage of retail, wholesale or industrial goods. Installation can be done without special tools in a minimum amount of time. All steel parts are finished in attractive 723 Light Putty baked enamel. Starter and add-on units are combined to form economical rows of shelving. Each add-on unit includes a pair of tee posts which are used in common between units. This reduces assembly time and the number of parts required. Begin each row with two angle posts from the starter unit and join the desired number of add-on units to complete the row. Finish the last unit with a pair of angle posts from the starter unit.

Single Rivet High Density Units: Single Rivet high density shelving uses single rivet beams on intermediate levels, and double rivet beams at the top and bottom for rigidity. For units up to 48 " wide. High Density Shelf Beams provide maximum space between shelf levels. Common tee posts between starter and add-on unit Shelf levels adjust on 1-1/2" centers. Fast easy assembly. Optional heavy duty single rivet shelf beams available for added capacity. Penco Single Rivet beam High Density shelving is designed to provide maximum vertical clearance between shelves. Access to stored items from all sides is possible because side and back cross braces are not necessary for stability. Add-on units assemble quickly without special tools by using a common tee post between units. Finished in 723 Light Putty baked enamel. Starter and add-on units are combined to form economical rows of shelving. Each add-on unit includes a pair of tee posts which are used in common between units. This reduces assembly time and the number of parts required. Begin each row with two angle posts from the starter unit and join the desired number of add-on units to complete the row. Finish the last unit with a pair of angle posts from

the starter unit. All intermediate shelves on units that exceed 24" deep utilize single rivet beams for front to back shelf deck support. Units 12", 18" and 24" deep include one pair of single rivet beams for intermediate use front to back.

Record Storage Units: RivetRite Record Storage Units aid in records management by providing an organized solution to high density archive storage. (Particle board must be ordered separately). Add-on units utilize a common Tee Post between units to save time during assembly. All unit box capacities are based on a standard archive box size of approximately 12-1/2" wide x 16-1/2" deep x 10-1/2" high.

AUTOMOTIVE PARTS STORAGE UNITS

Tire Storage Rack: Penco RivetRite Tire Racks provide for the neat organized storage of standard automobile or light truck tires. Specially designed beams with a 30 degree flange on the top securely cradle the tires. Available in Single-Row, (12" deep units with 9" Wall Ties) and Double-Row, (two 12" deep units separated by 18" Double Row Spacers). Unit depth shown includes wall ties/row spacers.

Muffler Storage: Uniform storage of various size mufflers is achieved through the use of RivetRite Muffler Storage Units. As with all RivetRite units, ease of assembly and access from all sides is standard. Add-on units utilize common Tee Posts between units. Particle Board must be ordered separately for each level.

Hanging Tailpipe Rack: Designed specifically for the storage of automotive and light truck tailpipes. Assembles in minutes without special tools. Stored items are visible and easily accessible.

Shelving Highlights / Contents

The Erectomatic Hi-Performance Shelving System is designed for greater strength, durability and versatility. Start with a single-tiered system today and expand into high density, multi-level or high rise systems tomorrow. At the heart of the system is the hi-performance welded box-beam flange shelf designed to be:

- Stronger - capacities from 400 lbs to 2,000 lbs!
- Simpler - no need for shelf reinforcing channels...even for extra heavy duty capacity shelving. That means fewer parts, less expense.
- Versatile - can be used with your choice of four posts types.

Along with the box-beam shelf, the Erectomatic Hi-Performance Shelving System features Beaded Posts, Angle Posts, Welded T-Posts, Heavy Duty H-Posts and a one-piece shelf clip with a complete line of accessories that can be added as your storage requirements change.

Together, these high quality shelving components provide safe, organized storage that is designed to allow for easy modifications and future expansion to meet your changing needs.

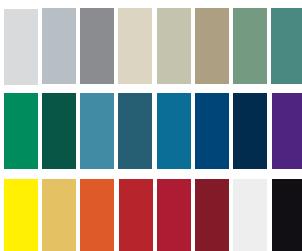


Chart of 24
Designer Colors
See Page 63



Erectomatic Beaded Posts

Beaded front and welded together at rear flange for strength. Flush to permit straight-in/straight-out shelf installation or shelf changing. Enables full use of the shelf width for storage. No dead space behind post. Provides easy independent vertical shelf adjustment on 1-1/2" centers. For use in the front of the unit only. See page 47 for more information.

Erectomatic Offset Angle & T-Posts

Used at the rear of the unit these posts are punched on 1-1/2" centers to allow quick, independent shelf adjustment. T-Posts consist of two angle posts welded together. They are used as common posts between units for faster assembly and fewer parts.

See page 47 for more information.



Erectomatic Heavy Duty H-Posts

All the advantages of the Flush Beaded Posts plus more than two times the load-carrying capacity. These heavy duty posts are common to front or rear and can support high rise or high density storage systems using standard Erectomatic components throughout. See page 48 for more information.



Erectomatic One Piece Shelf Clip

A non-intrusive one piece compression clip, designed to secure the shelf to any Erectomatic post without intruding into the area to be devoted to storage. Four clips are provided with each shelf. See page 51 for more information.



Erectomatic Hi-Performance® Shelves



Manufactured from high strength steel, front and rear flanges are formed into a tubular box shape and welded to the underside of the shelf on 3" centers for superior strength. Shelf corners are lapped and welded and sides are double flanged. A special design feature keeps clips snug against the shelf regardless of shelf class. Available in four load capacity classes. Sizes up to 48" wide and 36" deep. Shelves are punched to accept accessories such as dividers, label holders, bin fronts and base strips. For use with all Erectomatic posts. Can be independently installed or re-positioned using four one-piece compression clips. See page 52 for more information.

Erectomatic Shelving

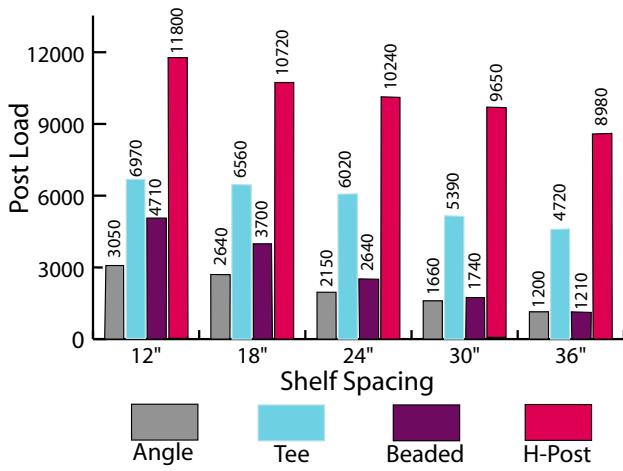
Introduction

Post Load Capacity Information

Post calculations should always be based on applied loads, shelf spacing and the allowable load for any post. To determine the actual load for any post, use the following procedure.

- a. Add the shelves in each unit multiplied by the load for each shelf. Do not include the bottom shelf which is 3" above the floor in your count.
- b. Divide the result by 2 to achieve loading to intermediate posts, and by 4 to achieve loading totals for posts located at aisle ends.
- c. The resulting numbers will be the load superimposed on each post.
- d. Check the superimposed load with the allowable load shown in the chart below.

If your shelving installation is in an area where seismic activity may occur, please contact Penco Products for design assistance.

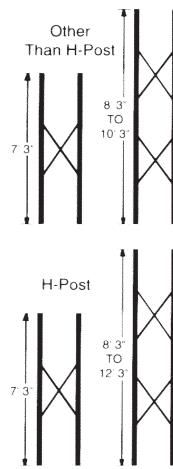


All post capacities shown are based on the latest AISI Design Manual for cold-formed members.

Sway Braces

Open shelving units, 87' high or less, must have at least one set of side sway braces per side and one set of back braces. Both side and back braces may be common with adjacent units. For multiple level, deck-over or high-rise shelving structures, the lowest set of braces should be within 6" of the floor. For posts over 87" high up to 123", order two sets of side and rear braces for each unit. Posts taller than 123" may require additional bracing.

For brace location requirements in regions where there is seismic activity, contact Penco Products for assistance.

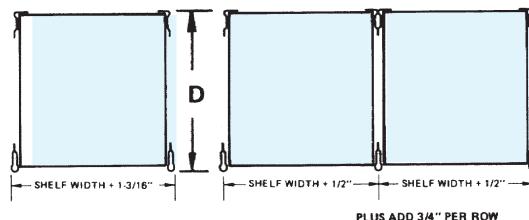


Unit Growth

Beaded Post Shelving

For "D" — Single Face add 3/16" to nominal shelf depth.

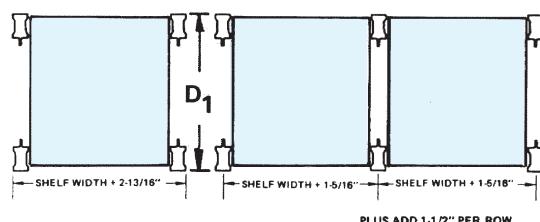
For "D" — Double Face add 3/8" to nominal shelf depth.



H-Post Shelving

For "D1" — Single Face add 5/16" to nominal shelf depth.

For "D1" — Double Face add 13/16" to nominal shelf depth for closed models, and 29/32" for open models.



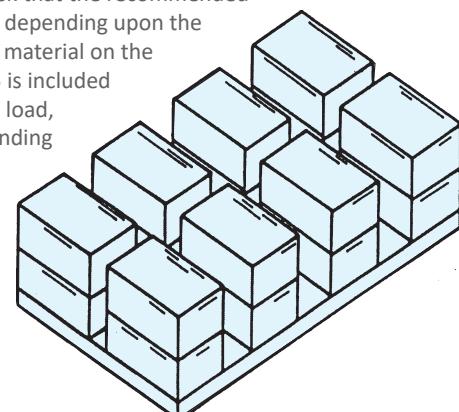
NOTE:

Widths of Erectomatic posts should be added to the nominal shelf width in any floor plan to determine the overall shelving width. Check "D" and "D1" dimensions depth.

The Most Reliable Shelf Test Method in the Industry

Test methods simulate actual applications to the highest degree possible. Evenly distributed static loads of boxed hardware are spaced to prevent "bridging" (product stacked together forms a mass like a stone archway resulting in a false safe load) to determine the maximum safe load for each size and type of shelf.

In actual usage, there is a risk that the recommended safe load may be exceeded, depending upon the type, size and placement of material on the shelf. A safety factor of 1.65 is included for your protection. Impact load, and point loads, such as standing on the shelf (unsafe) are not included in test

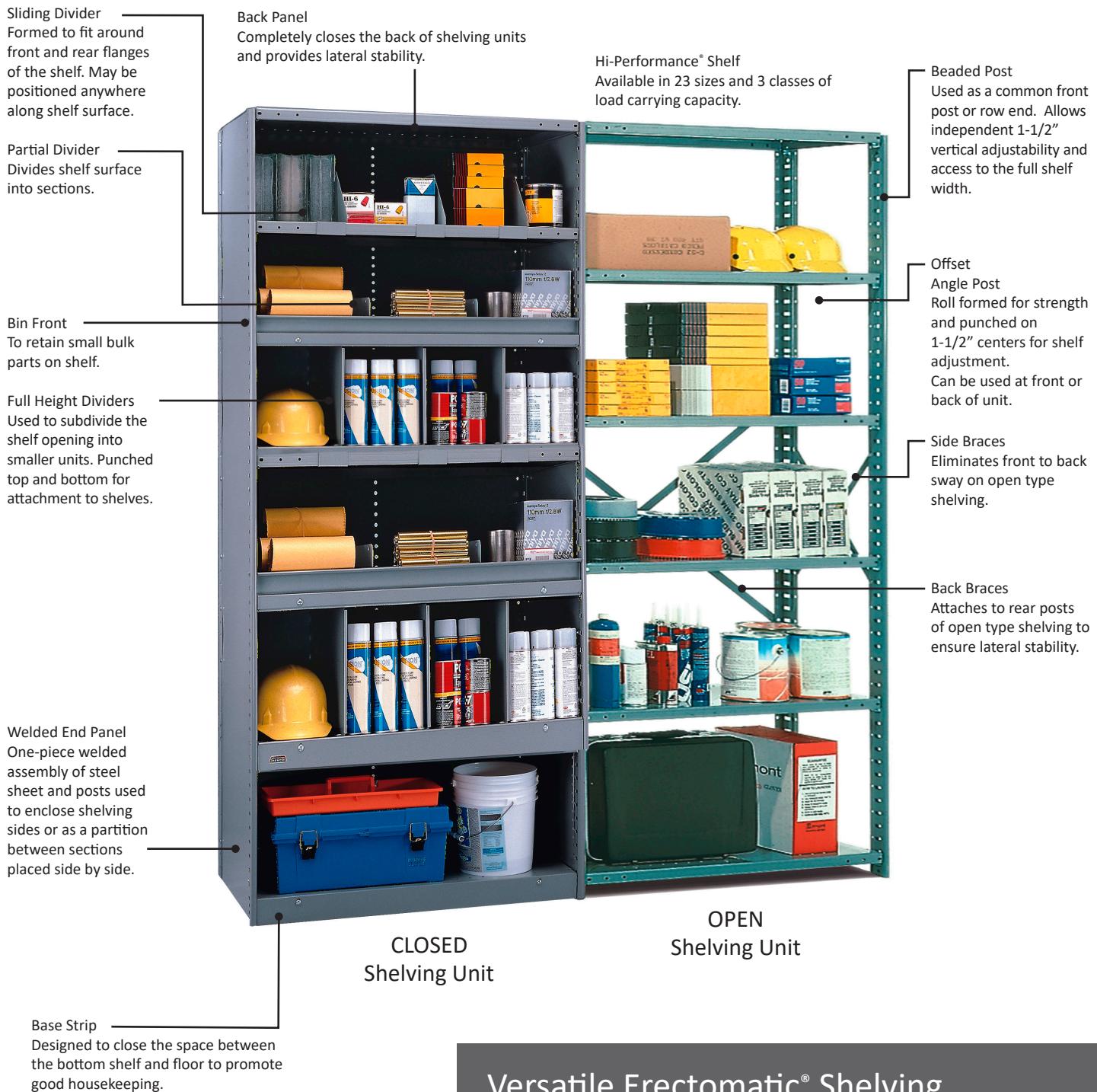


Shelf Test Method

Erectomatic Shelving



Versatile Shelving With Accessories



Versatile Erectomatic® Shelving
can be accessorized for any job.

Erectomatic Shelving

Open Shelving Units

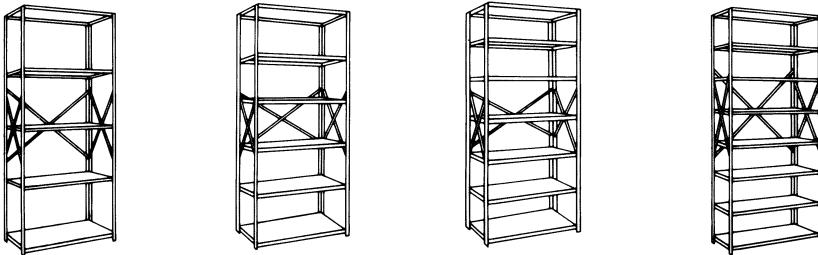
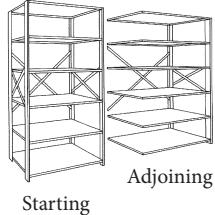


All Units Are 87" High
and have Heavy Duty
Hi-Performance® Shelves

Open shelving is the most basic method of storing packaged or bulky items. Units feature Beaded Posts at the front of the unit and Offset Angle or T-Posts at the rear and are stabilized by side and back sway bracing. All starting units are complete and free standing. Open starting units utilize beaded front posts with offset angle posts at the rear. Adjoining open shelving units consist of shelves, 1 beaded post, 1 T-post, 1 set of side sway braces and 1 set of back sway braces.

When installing a row of shelving with starting and adjoining units, a rear angle post from the starting unit is replaced with the T-Post supplied with the adjoining unit, and is used in common between the units. The angle post from the starting unit is used at the end of the row.

Back-to-back shelving utilizes common back braces.



Many other sizes are available.

| Width | Depth | Height | Starting | Starting | Starting | Starting |
|----------------|-------|--------|-----------|-----------|-----------|-----------|
| 36" Wide Units | 12" | 87" | H51012 | H51112 | H51212 | H51312 |
| | 18" | 87" | H51018 | H51118 | H51218 | H51318 |
| | 24" | 87" | H51024 | H51124 | H51224 | H51324 |
| | 30" | 87" | H51030 | H51130 | H51230 | H51330 |
| | 36" | 87" | H51036 | H51136 | H51236 | H51336 |
| 42" Wide Units | 12" | 87" | H57512 | H57712 | H57912 | - |
| | 18" | 87" | H57518 | H57718 | H57918 | - |
| | 24" | 87" | H57524 | H57724 | H57924 | - |
| | 30" | 87" | H57530 | H57730 | H57930 | - |
| | 36" | 87" | H57536 | H57736 | H57936 | - |
| 48" Wide Units | 12" | 87" | H56912 | H57112 | H57312 | - |
| | 18" | 87" | H56918 | H57118 | H57318 | - |
| | 24" | 87" | H56924 | H57124 | H57324 | - |
| | 30" | 87" | H56930 | H57130 | H57330 | - |
| | 36" | 87" | H56936 | H57136 | H57336 | - |
| Width | Depth | Height | Adjoining | Adjoining | Adjoining | Adjoining |
| 36" Wide Units | 12" | 87" | H51012A | H51112A | H51212A | H51312A |
| | 18" | 87" | H51018A | H51118A | H51218A | H51318A |
| | 24" | 87" | H51024A | H51124A | H51224A | H51324A |
| | 30" | 87" | H51030A | H51130A | H51230A | H51330A |
| | 36" | 87" | H51036A | H51136A | H51236A | H51336A |
| 42" Wide Units | 12" | 87" | H57512A | H57712A | H57912A | - |
| | 18" | 87" | H57518A | H57718A | H57918A | - |
| | 24" | 87" | H57524A | H57724A | H57924A | - |
| | 30" | 87" | H57530A | H57730A | H57930A | - |
| | 36" | 87" | H57536A | H57736A | H57936A | - |
| 48" Wide Units | 12" | 87" | H56912A | H57112A | H57312A | - |
| | 18" | 87" | H56918A | H57118A | H57318A | - |
| | 24" | 87" | H56924A | H57124A | H57324A | - |
| | 30" | 87" | H56930A | H57130A | H57330A | - |
| | 36" | 87" | H56936A | H57136A | H57336A | - |

Erectomatic Shelving



Closed Shelving Units

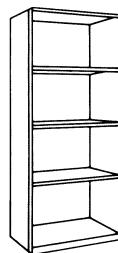
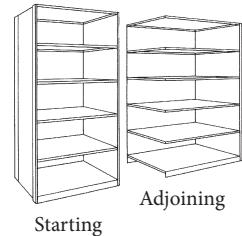


All Units Are 87" High
and have Heavy Duty
Hi-Performance® Shelves

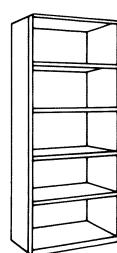
End panels, T-panels and back panels provide stability and protection for stored items. Front base strips are included. Locking doors may be added for greater security. All starting units are complete and free standing. Closed starting units use welded end panels. Closed adjoining units consist of shelves, 1 T-Panel, 1 base strip and a back panel.

When installing a row of shelving with starting and adjoining units, an end panel from the starting unit is replaced with the T-Panel supplied with the adjoining unit, and is used in common between the units. The angle post or end panel from the starting unit is used at the end of the row.

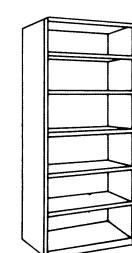
Back-to-back shelving utilizes common back panels.



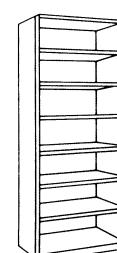
5 Shelves



6 Shelves



7 Shelves



8 Shelves

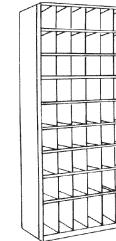
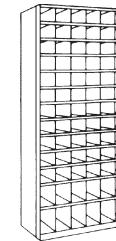
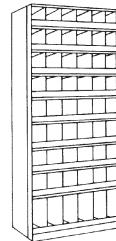
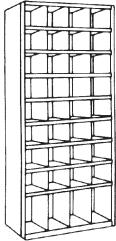
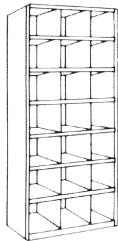
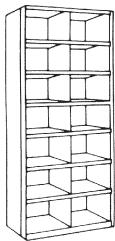
Many other sizes are available.

| Width | Depth | Height | Starting | Starting | Starting | Starting |
|----------------------|-------|--------|-----------|-----------|-----------|-----------|
| 36" Wide Units | 12" | 87" | H52012 | H52112 | H52212 | H52312 |
| | 18" | 87" | H52018 | H52118 | H52218 | H52318 |
| | 24" | 87" | H52024 | H52124 | H52224 | H52324 |
| | 30" | 87" | H52030 | H52130 | H52230 | H52330 |
| | 36" | 87" | H52036 | H52136 | H52236 | H52336 |
| 42" Wide Units | 12" | 87" | H57612 | H57812 | H58012 | - |
| | 18" | 87" | H57618 | H57818 | H58018 | - |
| | 24" | 87" | H57624 | H57824 | H58024 | - |
| | 30" | 87" | H57630 | H57830 | H58030 | - |
| | 36" | 87" | H57636 | H57836 | H58036 | - |
| 48" Wide Units | 12" | 87" | H57012 | H57212 | H57412 | - |
| | 18" | 87" | H57018 | H57218 | H57418 | - |
| | 24" | 87" | H57024 | H57224 | H57424 | - |
| | 30" | 87" | H57030 | H57230 | H57430 | - |
| | 36" | 87" | H57036 | H57236 | H57436 | - |
| Width | Depth | Height | Adjoining | Adjoining | Adjoining | Adjoining |
| 36" Wide Units | 12" | 87" | H52012A | H52112A | H52212A | H52312A |
| | 18" | 87" | H52018A | H52118A | H52218A | H52318A |
| | 24" | 87" | H52024A | H52124A | H52224A | H52324A |
| | 30" | 87" | H52030A | H52130A | H52230A | H52330A |
| | 36" | 87" | H52036A | H52136A | H52236A | H52336A |
| 42" Wide Units | 12" | 87" | H57612A | H57812A | H58012A | - |
| | 18" | 87" | H57618A | H57818A | H58018A | - |
| | 24" | 87" | H57624A | H57824A | H58024A | - |
| | 30" | 87" | H57630A | H57830A | H58030A | - |
| | 36" | 87" | H57636A | H57836A | H58036A | - |
| 48" Wide Units | 12" | 87" | H57012A | H57212A | H57412A | - |
| | 18" | 87" | H57018A | H57218A | H57418A | - |
| | 24" | 87" | H57024A | H57224A | H57424A | - |
| | 30" | 87" | H57030A | H57230A | H57430A | - |
| | 36" | 87" | H57036A | H57236A | H57436A | - |

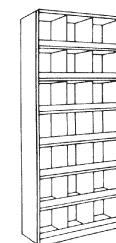
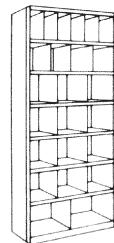
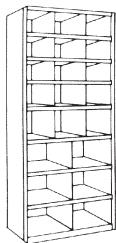
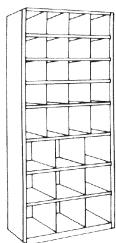
Erectomatic Shelving

36" Wide Bin Units

Erectomatic Bin Units are for storage of smaller parts and packaged goods. Easy access to materials stored. Save time in locating and picking stock. Models are 36" wide, 87" high in depths shown, and use Heavy Duty Hi-Performance® Shelves. Enclosed back and sides. Base Strips included. Bin openings are width x height. Many other sizes are available.



| | Openings | Size | Openings | Size | Openings | Size | Openings | Size | Openings | Size | Openings | Size |
|-------------|-----------|-----------|-----------|-----------|-----------|---------------------|-----------|---------------------|-----------|--------------------|-----------|-----------------------------|
| Shelf Depth | Starting | | Starting | | Starting | | Starting | | Starting | | Starting | |
| 12" | 14 | 18" x 12" | 21 | 12" x 12" | 32 | 9" x 9" 9" x 12" | 48 | 6" x 9" 6" x 12" | 66 | 6" x 6" 6" x 9" | 48 | 6" x 9" |
| 18" | | | | | 4 | | 6 | | 12 | | 6 | |
| 24" | | | | | | | | | | | | All with 3" High Bin Fronts |
| Shelf Depth | Adjoining | | Adjoining | | Adjoining | | Adjoining | | Adjoining | | Adjoining | |
| 12" | H52512 | | H52612 | | H52712 | | H52812 | | H52912 | | H53012 | |
| 18" | H52518 | | H52618 | | H52718 | | H52818 | | H52918 | | H53018 | |
| 24" | H52524 | | H52624 | | H52724 | | H52824 | | H52924 | | H53024 | |

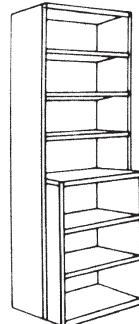
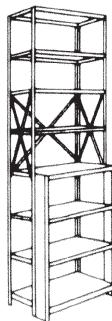


| | Openings | Size | Openings | Size | Openings | Size | Openings | Size | Openings | Size | Openings | Size |
|-------------|-----------|----------------------------------|-----------|------------------------------------|-----------|-------------------------------------|-----------|--|-----------|---|-----------|-------------------------|
| Shelf Depth | Starting | | Starting | | Starting | | Starting | | Starting | | Starting | |
| 12" | 16 | 9" x 9" 9" x 12" 12" x 12" | 12 | 12" x 9" 12" x 12" 18" x 12" | 9 | 12" x 12" 18" x 12" 36" x 12" | 6 | 6" x 12" 9" x 12" 12" x 12" 18" x 12" | 12 | 9" x 9" 6" x 9" 6" x 6" 12" x 12" 18" x 12" | 21 | 12" x 12" |
| 18" | 4 | | 3 | | 6 | | 4 | | 12 | | | With 3" High Bin Fronts |
| 24" | 9 | | 6 | | 1 | | 12 | | 6 | | | |
| Shelf Depth | Adjoining | | Adjoining | | Adjoining | | Adjoining | | Adjoining | | Adjoining | |
| 12" | H53112 | | H53212 | | H53312 | | H53412 | | H53512 | | H53612 | |
| 18" | H53118 | | H53218 | | H53318 | | H53418 | | H53518 | | H53618 | |
| 24" | H53124 | | H53224 | | H53324 | | H53424 | | H53524 | | H53624 | |

Erectomatic Shelving

Ledge Units

Erectomatic Ledge Units combine storage space with a work surface. Models are 36" wide and 87" high, and use Heavy Duty Shelves, in the depths shown. Closed units include front base strips. Accessorize to fit your requirement with dividers, label holders, doors, etc., selected from the component parts pages of this catalog.

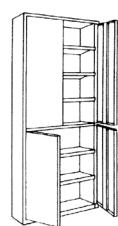
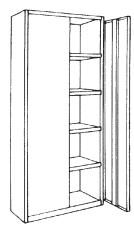
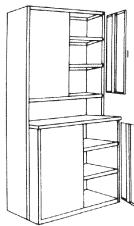


| Shelf Depth Above | Shelf Depth Below | Description | Description | Openings | Size |
|-------------------|-------------------|---|---|--|-----------------------|
| | | 4 adjustable shelves above ledge, 3 below | 4 adjustable shelves above ledge, 3 below | 12 1 | 12" x 9" 36" x 12" |
| | | | | 2 adj. shelves with 3" high bin fronts below ledge | |
| | | Starting | Starting | Starting | |
| 12" | 18" | H5491218 | H5501218 | | H5511218 |
| 12" | 24" | H5491224 | H5501224 | | H5511224 |
| 18" | 24" | H5491824 | H5501824 | | H5511824 |
| | | Adjoining | Adjoining | Adjoining | |
| 12" | 18" | H5491218A | H5501218A | | H5511218A |
| 12" | 24" | H5491224A | H5501224A | | H5511224A |
| 18" | 24" | H5491824A | H5501824A | | H5511824A |

Erectomatic Shelving

Counter Units & Cabinet Models

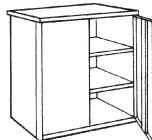
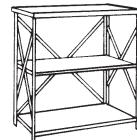
Erectomatic Cabinet Models are completely enclosed with swinging doors. Doors are equipped with locks to provide security. Swinging doors have a 3-point latching, chrome finished handles, and built-in lock. Models are 87" high, in the widths and shelf depths shown with Heavy Duty Shelves. Base Strips included.



| | | Description | |
|-------------------|-------------------|---|----------|
| Shelf Depth Above | Shelf Depth Below | 36" Wide | |
| | | 2 adjustable shelves above ledge 2 adjustable shelves below ledge 2 sets swinging doors | |
| 12" | 18" | H5641218 | Starting |
| 12" | 24" | H5641224 | |
| 18" | 24" | H5641824 | |

| | | Description | |
|-------------|-------------|---|----------|
| Shelf Depth | Shelf Depth | 36" Wide | |
| | | 2 adjustable shelves above ledge 2 adjustable shelves below ledge 2 sets swinging doors | |
| 12" | 18" | H55912 | Starting |
| 12" | 24" | H55918 | |
| 18" | 24" | H55924 | |

| | | Description | Description |
|-------------|-------------|--|--|
| Shelf Depth | Shelf Depth | 36" Wide | 36" Wide |
| | | 4 adjustable shelves 2 swinging doors | 5 adjustable shelves 2 sets of swinging doors |
| 12" | 18" | H56312 | H56312 |
| 12" | 24" | H56318 | H56318 |
| 18" | 24" | H56324 | H56324 |



All **Erectomatic Counter Units** are 36" wide and 39" high. They provide neat compact storage with a smooth work surface. Shelves are Heavy Duty. Base Strip included with closed models. Counter models accept standard shelving accessories. See component pages of this catalog.

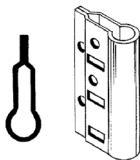
| | | Description | Description | Description |
|-------------|-------------|----------------------|----------------------|--|
| Shelf Depth | Shelf Depth | 2 adjustable shelves | 2 adjustable shelves | 2 adjustable shelves 2 swinging doors |
| | | Starting | Starting | Starting |
| 18" | 18" | H55418 | H55518 | H55818 |
| 24" | 18" | H55424 | H55524 | H55824 |
| 18" | 24" | H55418A | H55518A | H55818A |
| 24" | 24" | H55424A | H55524A | H55824A |

Erectomatic Shelving

Erectomatic Shelving Components can be ordered in any combination for all kinds of custom applications. Be certain to order shelves and posts of sufficient capacity to hold the maximum expected load (refer to the capacity information on pages 40 and 52).

Posts and panels are available in custom heights (minimum quantity may apply). Contact your representative with your requirements.

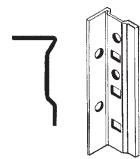
| Dimensions (inches) | Width | Depth | Height | Cat. No. |
|---------------------|-------|-------|--------|----------|
|---------------------|-------|-------|--------|----------|



Beaded Front Post

Used at front of shelving, in single units or in common with adjoining unit. Permits full access to shelf width. Allows independent adjustment of shelves on 1-1/2" centers.

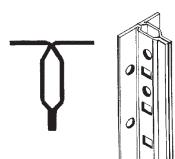
| | | | |
|---|---|-----|---------|
| - | - | 39 | H0023C |
| - | - | 75 | H0026C |
| - | - | 87 | H0027C |
| - | - | 99 | H0028C |
| - | - | 123 | H00210C |



Offset Angle Post

Angles for rear of single or end units. Slotted on 1-1/2" centers to permit easy shelf adjustment.

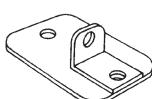
| | | | |
|---|---|-----|---------|
| - | - | 39 | H0043C |
| - | - | 75 | H0046C |
| - | - | 87 | H0047C |
| - | - | 99 | H0048C |
| - | - | 123 | H00410C |



T-Post

Constructed by spotwelding two offset angle posts together. Use at rear of shelving when adjoining units are added to form a continuous row.

| | | | |
|---|---|-----|---------|
| - | - | 39 | H0063C |
| - | - | 75 | H0066C |
| - | - | 87 | H0067C |
| - | - | 99 | H0068C |
| - | - | 123 | H00610C |



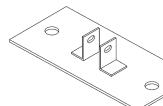
Foot Plate, Erectomatic Post (zinc plated)

1/8" thick with mounting bracket for bolting to post. Has 7/16" diameter hole for floor anchor bolts. Includes hardware to fasten to post. If shims are required, use shim No. H026 (page 48).

2-1/4 3-1/2 - H050H

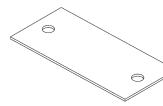
| Dimensions (inches) | Width | Depth | Height | Cat. No. |
|---------------------|-------|-------|--------|----------|
|---------------------|-------|-------|--------|----------|

Heavy Duty Footplate for Beaded, Angle and Tee Posts - 7 ga.



Includes two mounting brackets and intended for use in high seismic areas or in conditions where post loading is intended to be spread over a larger area, such as on a mezzanine/work platform elevated deck. Footplate is drilled to accept 3/8" floor anchors, and can be used with 9281 3/8"x 3-3/4" wedge anchors to meet IBC 2003/2006 building code requirements in high seismic areas.

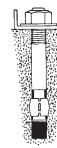
2-3/8 5-1/2 - 1ACX326H



Heavy Duty Shim - 7 Ga.

Fits under 1ACX326H footplate for leveling as needed.

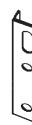
2-3/8 5-1/2 - 1ACX330



Concrete Floor Anchor

Use the longer anchor # 9281 in seismic zones higher than 2A.

3/8 - 2-1/4 9280
3/8 - 3-3/4 9281



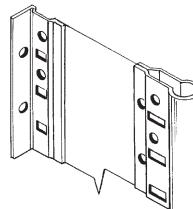
Splice Channels for Beaded, Angle and T-Post

Used when splicing posts. Splice and aisle supports use common hardware. Replaces Part No. H009H

HXAS071H

End Panel (welded 1 piece)

Welded one-piece construction for easy assembly. Consists of beaded front post, offset angle post and one-piece side panel welded together on 6" centers. For left or right ends of single units or row ends.



| | | | |
|---|----|-----|-----------|
| - | 12 | 39 | H0921203C |
| - | 12 | 75 | H0921206C |
| - | 12 | 87 | H0921207C |
| - | 12 | 99 | H0921208C |
| - | 12 | 123 | H0921210C |
| - | 15 | 87 | H0921507C |
| - | 18 | 39 | H0921803C |
| - | 18 | 75 | H0921806C |
| - | 18 | 87 | H0921807C |
| - | 18 | 99 | H0921808C |
| - | 18 | 123 | H0921810C |
| - | 24 | 39 | H0922403C |
| - | 24 | 75 | H0922406C |
| - | 24 | 87 | H0922407C |
| - | 24 | 99 | H0922408C |
| - | 24 | 123 | H0922410C |
| - | 30 | 87 | H0923007C |
| - | 36 | 87 | H0923607C |

Erectomatic Shelving

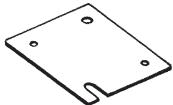
Shelving Components

| Dimensions (inches) | Width | Depth | Height | Cat. No. | Dimensions (inches) | Width | Depth | Height | Cat. No. |
|--|-------|-------|-----------|----------|---------------------|-------|-------|--------|----------|
| T-Panel | | | | | | | | | |
| Welded construction for easy assembly. Consisting of beaded front post, T-post and one-piece side panel welded on 6" centers. For use between units when adjoining models are added to form a continuous shelving row. | | | | | | | | | |
| | | | | | | | | | |
| - | 12 | 39 | H0941203C | | - | 12 | - | - | 12015S |
| - | 12 | 75 | H0941206C | | - | 15 | - | - | 12019S |
| - | 12 | 87 | H0941207C | | - | 18 | - | - | 12026S |
| - | 12 | 99 | H0941208C | | - | 24 | - | - | 12034S |
| - | 12 | 123 | H0941210C | | - | 30 | - | - | 12045S |
| - | 15 | 87 | H0941507C | | - | 36 | - | - | 12049S |
| - | 18 | 39 | H0941803C | | | | | | |
| - | 18 | 75 | H0941806C | | | | | | |
| - | 18 | 87 | H0941807C | | | | | | |
| - | 18 | 99 | H0941808C | | | | | | |
| - | 18 | 123 | H0941810C | | | | | | |
| - | 24 | 39 | H0942403C | | | | | | |
| - | 24 | 75 | H0942406C | | | | | | |
| - | 24 | 87 | H0942407C | | | | | | |
| - | 24 | 99 | H0942408C | | | | | | |
| - | 24 | 123 | H0942410C | | | | | | |
| - | 30 | 87 | H0943007C | | | | | | |
| - | 36 | 87 | H0943607C | | | | | | |
| Ledge Panel | | | | | | | | | |
| For converting open or closed type shelving models to ledge models. All-welded construction. Combines beaded front post and preformed panel into a one-piece unit. Ledge panel cover is included. | | | | | | | | | |
| | | | | | | | | | |
| - | 6 | 39 | H0120306H | | | | | | |
| - | 12 | 39 | H0120312H | | | | | | |
| - | 18 | 39 | H0120318H | | | | | | |
| Back Panel | | | | | | | | | |
| Punched on 1" centers at vertical edges and center for mounting to back of posts and shelves. 36" wide backs are furnished in 1 piece through 87" high; above 87" they are split horizontally. 42" & 48" wide backs are furnished in 1 piece through 51" high; above 51" they are split horizontally. Includes back clip and hardware. | | | | | | | | | |
| | | | | | | | | | |
| 36 | - | 39 | 12500H | | | | | | |
| 36 | - | 51 | 12510H | | | | | | |
| 36 | - | 75 | 12530H | | | | | | |
| 36 | - | 87 | 12540H | | | | | | |
| 36 | - | 99 | 12550H | | | | | | |
| 42 | - | 39 | 12600H | | | | | | |
| 42 | - | 51 | 12610H | | | | | | |
| 42 | - | 87 | 12640H | | | | | | |
| 42 | - | 99 | 12650H | | | | | | |
| 48 | - | 39 | 12700H | | | | | | |
| 48 | - | 51 | 12710H | | | | | | |
| 48 | - | 87 | 12740H | | | | | | |
| 48 | - | 99 | 12750H | | | | | | |
| Side Sway Braces, For Beaded Post Unit (Pair) | | | | | | | | | |
| One pair forms a set which bolts to the front and rear posts for stability. Can be used in common between adjoining units. NOT for use with H-Posts. | | | | | | | | | |
| | | | | | | | | | |
| | | | | | - | 12 | - | - | 12015S |
| | | | | | - | 15 | - | - | 12019S |
| | | | | | - | 18 | - | - | 12026S |
| | | | | | - | 24 | - | - | 12034S |
| | | | | | - | 30 | - | - | 12045S |
| | | | | | - | 36 | - | - | 12049S |
| Back Sway Braces, For Back,T, & H-Post, (Pair) | | | | | | | | | |
| Each pair forms a set which bolts to posts at rear of unit for stability. Can be used in common with back to back units. | | | | | | | | | |
| | | | | | | | | | |
| | | | | | - | 36 | - | - | 12036H |
| | | | | | - | 42 | - | - | 12042H |
| | | | | | - | 48 | - | - | 12048H |
| H-Post | | | | | | | | | |
| Very strong tubular design. 1-1/2" wide x 2-15/16" deep in heights shown. Used in front and rear post positions. Sides slotted on 1-1/2" centers for shelf clip adjustment. Has more load carrying capacity than beaded or angle posts. | | | | | | | | | |
| | | | | | | | | | |
| - | - | - | 87 | | - | 87 | | | H0037C |
| - | - | - | 99 | | - | 99 | | | H0038C |
| - | - | - | 123 | | - | 123 | | | H00310C |
| - | - | - | 147 | | - | 147 | | | H00312C |
| Foot Plate, | | | | | | | | | |
| H-Post, Light/Medium Duty | | | | | | | | | |
| Mounting bracket welded to top for bolting inside H-Posts. Base plate has 7/16" diameter hole for floor anchor bolts. | | | | | | | | | |
| | | | | | | | | | |
| 3-1/2 | | 2-1/4 | | | - | | | | H025H |
| Foot Plate, H-Post, Heavy Duty | | | | | | | | | |
| Mounting bracket is welded to top for bolting inside H-Post. Base plate is 3/8" thick and has four 7/16" diameter holes for receiving the embosses in shim plate (No. H016) and for floor anchor bolt. | | | | | | | | | |
| | | | | | | | | | |
| 4 | | 3-1/2 | | | - | | | | H015H |
| Shim Plate, For Foot Plate, Light/Medium Duty | | | | | | | | | |
| Fits under foot plate (Cat. No. H025H or H050H) for leveling. Has (1) 7/16" diameter hole which aligns with hole in foot plate to permit anchoring to floor. | | | | | | | | | |
| | | | | | | | | | |
| 3-1/2 | | 2-1/4 | | | - | | | | H026 |

Dimensions (inches) Width Depth Height Cat. No.

Shim Plate, Heavy Duty

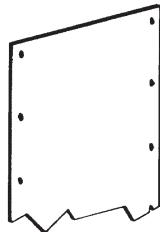
Fits under foot plate (Cat. No. H015H) for leveling. Has (2) 7/16" diameter holes which align with footplate holes to permit anchoring to floor.



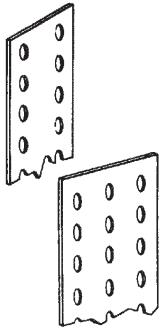
4 3-1/2 - H016

Side Panel, H-Post

Provides closed side panels sections where desired. Punched on 6" centers for mounting to front and rear H-Posts. Attach 1/4 x 20 pan head screws (included).



| | | | |
|---|----|----|-----------|
| - | 18 | 39 | H0911803H |
| - | 18 | 87 | H0911807H |
| - | 24 | 39 | H0912403H |
| - | 24 | 87 | H0912407H |
| - | 36 | 39 | H0913603H |
| - | 36 | 87 | H0913607H |

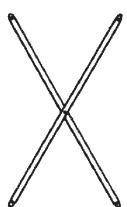
**Connector Strip,
For H-Post Back**

For connecting Back Panels or braces to rear H-Posts; punched on 1" centers. 2-1/16" wide pieces are for back posts at row ends. 3-1/8" wide pieces are for adjoining intermediate back posts, and are punched at outside vertical edges & center. Hardware included.

| | | | |
|--------|---|----|--------|
| 2-1/16 | - | 39 | H1143H |
| 2-1/16 | - | 51 | H1144H |
| 2-1/16 | - | 87 | H1147H |
| 3-1/8 | - | 39 | H1153H |
| 3-1/8 | - | 51 | H1154H |
| 3-1/8 | - | 87 | H1157H |

Side Sway Braces, H-Post (Pair)

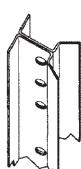
Each pair forms a set for connecting front and rear H-Posts for stability. Can be used in common with adjoining unit (for H-Posts ONLY).



| | | | |
|---|----|---|---------|
| - | 12 | - | H34112H |
| - | 15 | - | H34115H |
| - | 18 | - | H34118H |
| - | 24 | - | H34124H |
| - | 30 | - | H34130H |
| - | 36 | - | H34136H |

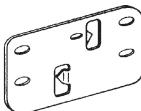
Splice, H-Post

For use in multi-level and high rise shelving. Fits inside two connecting H-Posts. Punched for bolting. Maintains post strength at the splice without interfering with clips or other accessories. Hardware included.



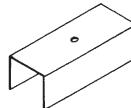
| | | | |
|---|---|-------|-------|
| - | - | 9-3/4 | H010H |
|---|---|-------|-------|

Dimensions (inches) Width Depth Height Cat. No.

Combination Clip, H-Post (zinc plated)

Mounts to rear H-Posts to provide anchor point for back sway braces. Also used to connect H-Posts and common back panels or common back sway braces together in back to back models. Hardware included. Not for use in high seismic areas.

H027H

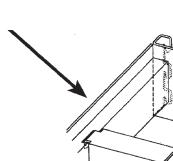
Support Brace for Bottom Shelf (For Class 3 Only)

Used only on Class 3 bottom shelves to support center support hat section. Positioned in center of shelf; rests on floor. Includes hardware.

5-1/8 2-1/16 1-3/4 H131H

H-Post Beams

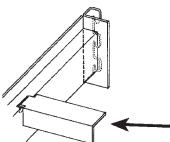
Beams with H-Post end connectors for use with plywood decking. Support Angle(s) are required (see below).



| | | | |
|--------|---|---|--------|
| 36-1/2 | - | - | 900036 |
| 42-1/2 | - | - | 900042 |
| 48-1/2 | - | - | 900048 |
| 72-1/2 | - | - | 900072 |
| 84-1/2 | - | - | 900084 |
| 96-1/2 | - | - | 900096 |

Plywood Support Angles (For H-Post Beams)

Use 1 for 36" & 42", 2 for 48", 3 for 72" & 84", 4 for 96" Beams.



| | | | |
|---|----|---|--------|
| - | 18 | - | 20349C |
| - | 24 | - | 20341C |
| - | 30 | - | 20330C |
| - | 36 | - | 20342C |
| - | 42 | - | 20332C |
| - | 48 | - | 20336C |

| Standard H-Post Beam Capacities (With Support Angles) | 36-1/2 | 2500/Pr. |
|---|--------|----------|
| | 42-1/2 | 2500/Pr. |
| | 48-1/2 | 2500/Pr. |
| | 72-1/2 | 1760/Pr. |
| | 84-1/2 | 1500/Pr. |
| | 96-1/2 | 1350/Pr. |

All Capacities are based on uniformly distributed loads in pounds.

Counter Top

Heavy duty steel working surface with cornice at front and rear. Use End Caps for finishing cornice on ends. Hardware included.

| | | | |
|----|----|---|-----------|
| 36 | 18 | - | H1953618H |
| 36 | 24 | - | H1953624H |

End Caps for Counter Top, (Pair)

Provides a finished cornice on extreme ends of counter top applications. Sold in pairs; hardware included.

| | | | |
|---|----|---|---------|
| - | 18 | - | H20118H |
| - | 24 | - | H20124H |



Shaped to fasten directly to the bottom shelf

Accessories

| Dimensions (inches) | Width | Depth | Height | Cat. No. | Dimensions (inches) | Width | Depth | Height | Cat. No. |
|--|-------|-------|---------|----------|---------------------|-------|--------|----------|----------|
| Base Strip | | | | | | | | | |
| Shaped to fasten directly to the bottom shelf front to close the gap beneath it and the floor. Normally used with closed shelving. Includes hardware. Note: 4-1/2" high model is for use with H-Posts attached to footplates and in x-ray storage units. | | | | | | | | | |
| (Image of a base strip) | | | | | | | | | |
| 36 | - | 3 | 14520H | | | - | 12 | 6 | 15600H |
| 36 | - | 4 | 1450H | | | - | 12 | 9 | 15620H |
| 36 | - | 4-1/2 | H23336H | | | - | 12 | 12 | 15640H |
| 42 | - | 3 | 14530H | | | - | 12 | 18 | 15670H |
| 42 | - | 4 | 14560H | | | - | 15 | 6 | 15700H |
| 48 | - | 3 | 14540H | | | - | 15 | 12 | 15740H |
| 48 | - | 4 | 14570H | | | - | 18 | 6 | 15800H |
| Label Holder | | | | | | | | | |
| Punched for attaching to front flange of shelves. Accepts 7/8" high labels. Attaches with plastic button fasteners (included). | | | | | | | | | |
| (Image of a label holder) | | | | | | | | | |
| 36 | - | - | 13920H | | | - | 24 | 6 | 15900H |
| 42 | - | - | 13930H | | | - | 24 | 9 | 15920H |
| 48 | - | - | 13940H | | | - | 24 | 12 | 15940H |
| Bin Front | | | | | | | | | |
| Offset type double formed at top and triple flanged at bottom to telescope over shelf flange. Hardware included. | | | | | | | | | |
| (Image of a bin front) | | | | | | | | | |
| 36 | - | 1 | 14210H | | | - | 12 | 2 | 16395H |
| 36 | - | 2 | 14220H | | | - | 12 | 4 | 16410H |
| 36 | - | 3 | 14240H | | | - | 18 | 2 | 16397H |
| 42 | - | 3 | 14340H | | | - | 18 | 4 | 16430H |
| 48 | - | 3 | 14440H | | | - | 24 | 4 | 16440H |
| Full Divider | | | | | | | | | |
| Front edge beaded; top, bottom and rear edges are flanged. Attaches with plastic button fasteners (included). For Class 3 shelving applications, contact your representative regarding special notching. Note: 16-1/2" high model is for x-ray unit. | | | | | | | | | |
| (Image of a full divider) | | | | | | | | | |
| - | | | | | - | 12 | 6 | 15600H | |
| - | | | | | - | 12 | 9 | 15620H | |
| - | | | | | - | 12 | 12 | 15640H | |
| - | | | | | - | 12 | 18 | 15670H | |
| - | | | | | - | 15 | 6 | 15700H | |
| - | | | | | - | 15 | 12 | 15740H | |
| - | | | | | - | 18 | 6 | 15800H | |
| - | | | | | - | 18 | 9 | 15820H | |
| - | | | | | - | 18 | 12 | 15840H | |
| - | | | | | - | 18 | 16-1/2 | 15865H | |
| - | | | | | - | 18 | 18 | 15870H | |
| - | | | | | - | 18 | 24 | 15890H | |
| - | | | | | - | 24 | 6 | 15900H | |
| - | | | | | - | 24 | 9 | 15920H | |
| - | | | | | - | 24 | 12 | 15940H | |
| - | | | | | - | 24 | 18 | 15970H | |
| - | | | | | - | 24 | 21 | 1DVX082H | |
| - | | | | | - | 24 | 24 | 15990H | |
| - | | | | | - | 36 | 18 | 16170H | |
| Partial Divider | | | | | | | | | |
| Partitions shelves from front to rear. Flanged and punched for shelf attachment. Has rounded top corners for safety. Attaches with plastic button fasteners (included). | | | | | | | | | |
| (Image of a partial divider) | | | | | | | | | |
| - | | | | | - | 12 | 2 | 16395H | |
| - | | | | | - | 12 | 4 | 16410H | |
| - | | | | | - | 18 | 2 | 16397H | |
| - | | | | | - | 18 | 4 | 16430H | |
| - | | | | | - | 24 | 4 | 16440H | |
| Sliding Divider, For Box Formed Shelf | | | | | | | | | |
| Formed to fit around front and over rear edges of shelf. Can be positioned horizontally anywhere along shelf surface. No hardware required. | | | | | | | | | |
| (Image of a sliding divider) | | | | | | | | | |
| - | | | | | - | 12 | 4 | 1H4124C | |
| - | | | | | - | 12 | 6 | 1H4126C | |
| - | | | | | - | 18 | 4 | 1H4184C | |
| - | | | | | - | 18 | 6 | 1H4186C | |
| - | | | | | - | 24 | 4 | 1H4244C | |
| - | | | | | - | 24 | 6 | 1H4246C | |

Erectomatic Shelving



Accessories & Miscellaneous Hardware

| Dimensions (inches) | Width | Depth | Height | Cat. No. |
|---|-------|-------|----------|----------|
| Swinging Doors, With Lock & 2 Keys | | | | |
| Pre-hung at the factory on a welded frame for easy assembly. Includes 3-point latch system with locking handle and 2 keys. Can be used on standard ledge or counter units up to 87" high. Six Universal Clips required for attaching doors to shelving posts. Order separately. | | | | |
| 36 | - | 36 | H3003636 | |
| 36 | - | 48 | H3003648 | |
| 36 | - | 85 | H3003684 | |
| 48 | - | 36 | H3004836 | |
| 48 | - | 85 | H3004884 | |

Touchup Paint

Spray Paint, 12 Oz. Can

| | | | |
|-----------------------|-------|--------------------|-------|
| 012 Tawny Tan | 97012 | 722 Patriot Red | 97722 |
| 021 Gray Ash | 97021 | 723 Light Putty | 97723 |
| 028 Gray | 97028 | 736 Burgundy | 97736 |
| 052 Reflex Blue | 97052 | 767 Cardinal Red | 97767 |
| 054 Canvas | 97054 | 806 Marine Blue | 97806 |
| 055 Shamrock | 97055 | 812 Hunter Green | 97812 |
| 056 Sunburst | 97056 | 822 Regal Blue | 97822 |
| 058 Nordic Purple | 97058 | 826 Slate Blue | 97826 |
| 073 Champagne | 97073 | 848 January White | 97848 |
| 701 Spray Green | 97701 | 949 Jet Black | 97949 |
| 710 Sage Brush Yellow | 97710 | 952 Turquoise Teal | 97952 |
| 715 Lake Blue | 97715 | | |
| 720 Mandarin Orange | 97720 | | |

| Dimensions (inches) | Width | Depth | Height | Cat. No. |
|---|-------|-------|--------|----------|
| Miscellaneous Replacement Parts & Hardware | | | | |

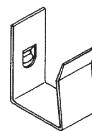
Miscellaneous Replacement Parts & Hardware



Shelf Clip, For Erectomatic Posts

One piece compression clip that is shipped in sets of 4 with each shelf ordered. Order by single pieces for replacement use only.

H133Z



Clip, Back Panel (Plated)

Formed to fit the bottom flange of shelf and tabbed to insert in holes in center of back panel. Holds back panel to shelf and prevents panel from bowing. Normally shipped with backs; order here for replacement use only.

H120C



Universal Clip, To Mount Doors

Six clips required to mount swinging doors. Twelve clips required for sliding doors. Not included with doors. Order separately.

H315H



Plastic Button

For attaching various shelving accessories such as dividers and label holders. Normally included with shipment; order here for replacement only.

8401

Pan Head Screws

(sold in quantity of 100)

| | | | |
|---------------------------|---|---|---------|
| 1/4-20 x 1/2 | - | - | 8412H |
| 1/4-20 x 3/4 | - | - | 8410H |
| 1/4-20 x 1/4 | - | - | 8409H |
| 1/4-20 x 1/2 (Grade 5) | - | - | 8412G5H |

1/4-20 Hex Nut

(sold in quantity of 100)

| | | | |
|---------|---|---|---------|
| - | - | - | 8473H |
| Grade 5 | - | - | 8473G5H |

Square Washer

(sold in quantity of 100)

| | | | |
|---|---|---|-------|
| - | - | - | 8408H |
|---|---|---|-------|

Erectomatic Shelving

Hi-Performance® Shelves

Erectomatic® Hi-Performance® Shelves maximize load handling capacity through a design which shapes the front and rear flanges into rigid tubular box beams. The box shape provides two vertical surfaces in each box-flange that inherently give it a high strength-to-weight ratio. Additional reinforcing bars or angles are not used with Hi-Performance shelves.

The shelves are efficiently manufactured from high strength cold rolled steel on a modern automated roll forming mill.

For additional strength, front and rear flanges are welded to the underside of the shelf on 3" centers. Shelf corners are lapped and welded.

Shelves are available in a wide variety of sizes shown below in the capacity chart. All shelves are punched on 1.5" centers to accept shelving accessories such as dividers, label holders and bin fronts.

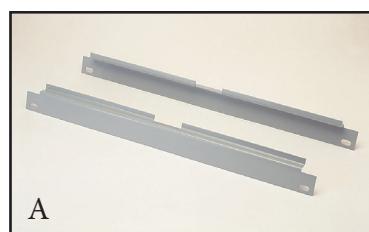
Erectomatic® Hi-Performance® Shelves and Capacities

| | | Class 1 Heavy Duty High Strength Steel | | Class 2 Extra Heavy Duty High Strength Steel | | Class 3 Extra Heavy Duty With Reinforcing* | |
|------------|------------|--|----------|--|----------|---|--|
| Unit Width | Unit Depth | Cat. No. | Capacity | Cat. No. | Capacity | Capacity | |
| 30" | 12" | H1203012C | - | - | - | - | |
| | 15" | H1203015C | - | - | - | - | |
| | 18" | H1203018C | - | - | - | - | |
| | 24" | H1203024C | - | - | - | - | |
| 36" | 12" | H1203612C | 800 lb | H1183612C | 1100 lb | - | |
| | 15" | H1203615C | 800 lb | H1183615C | 1100 lb | - | |
| | 18" | H1203618C | 850 lb | H1183618C | 1200 lb | 2000 lb | |
| | 24" | H1203624C | 800 lb | H1183624C | 1250 lb | 2000 lb | |
| | 30" | H1203630C | 500 lb | H1183630C | 900 lb | 2000 lb | |
| | 36" | H1203636C | 500 lb | H1183636C | 900 lb | 2000 lb | |
| 42" | 12" | H1204212C | 600 lb | H1184212C | 1100 lb | - | |
| | 15" | H1204215C | 600 lb | H1184215C | 1100 lb | - | |
| | 18" | H1204218C | 600 lb | H1184218C | 1050 lb | 1600 lb | |
| | 24" | H1204224C | 600 lb | H1184224C | 900 lb | 1600 lb | |
| | 30" | H1204230C | 625 lb | H1184230C | 1000 lb | 1600 lb | |
| | 32" | H1204232C | 525 lb | H1184232C | 950 lb | 1600 lb | |
| | 36" | H1204236C | 475 lb | H1184236C | 900 lb | 1600 lb | |
| 48" | 12" | H1204812C | 500 lb | H1184812C | 750 lb | - | |
| | 15" | H1204815C | 500 lb | H1184815C | 850 lb | - | |
| | 18" | H1204818C | 500 lb | H1184818C | 900 lb | 1200 lb | |
| | 24" | H1204824C | 500 lb | H1184824C | 900 lb | 1200 lb | |
| | 30" | H1204830C | 500 lb | H1184830C | 750 lb | 1200 lb | |
| | 36" | H1204836C | 500 lb | H1184836C | 750 lb | 1200 lb | |

* Class 3 Capacities are based upon the use of Extra Heavy Duty Shelves with (A) Side Shelf Supports and (B) Center Support for additional capacity. Must use nuts and bolts for shelves, not clips. All shelves are supplied with Erectomatic Clips. All shelf load capacities are in pounds for evenly distributed loads, and include a safety factor of 1.65.

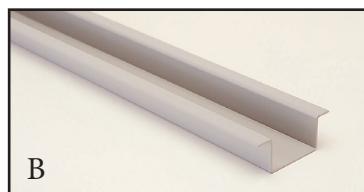
A. Class 3 Side Shelf Support (pairs)

Used to support Center Support in Class 3 applications.



B. Class 3 Center Support

Runs left to right beneath the mid-point of the shelf for conversion to Class 3. Supported by side shelf supports.



| Class 3 Center Support | |
|------------------------|----------|
| Unit Width | Cat. No. |
| 36" | H13736C |
| 42" | H13742C |
| 48" | H13748C |

Erectomatic Shelving

Multi-Level Shelving



Penco Erectomatic Shelving Systems

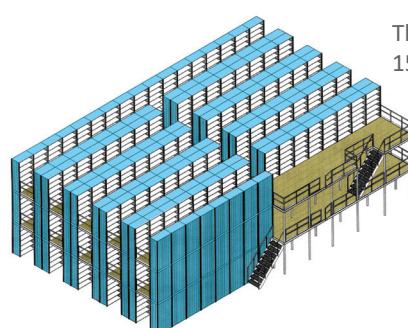
Using standard components, Penco Erectomatic Shelving can be designed and configured to overcome a number of storage problems. By going UP and not OUT, tall shelving systems take advantage of factory space by capturing overhead area that is lighted, heated and paid for, while allowing valuable floor space to be used for more profitable activities.

With Erectomatic Flush Beaded Front Posts, or H-Posts for extreme loading and seismic applications, shelving systems can be built vertically. We can also supply pre-engineered components, elevated walkways, stair structures and handrails designed to meet local, state or federal codes. In Hi-Rise applications where free-path man-aboard order picking equipment is used, guide rail and cross-aisle top-ties are used to keep the structure sound.

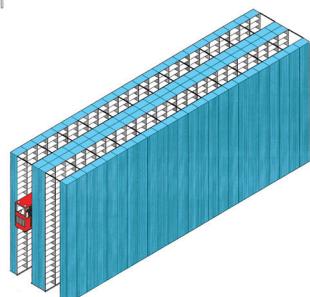
Shelving systems can be designed as "closed" installations with solid backs and welded side panels, or as "open" style structures that are held together with side and rear sway bracing. For "pass through" order picking, H-Post with beams and a variety of decking choices are available.

All Penco Erectomatic High Performance Storage Systems are available with drawings that have been reviewed and approved by a structural engineer licensed in the state where the installation will take place.

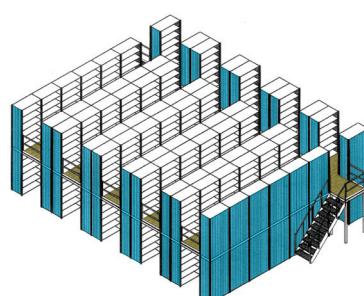
Three-Level Structure -
153 Units per Level



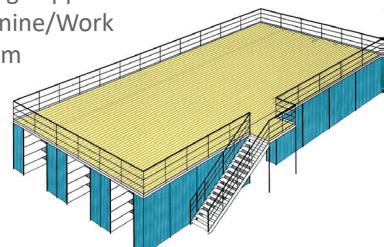
High-Rise
Picking
System



Shelving Supported
Mezzanine/Work
Platform



Two-Level Structure- 70
Units per Level



Shelving Specifications

General: All shelving shall comply with SMA and ANSI MH 28.1-1982 and in addition shall have the following characteristics:

POSTS - All posts shall be 14 gauge with 3/8" x 7/8" slots punched on 1-1/2" vertical centers for shelf adjustment using non-intrusive compression clips. Swy braces shall be attached to the post with nuts and bolts that shall not interfere with shelf adjustment.

BEADED POST - Shall be 14 gauge 11/16" wide x 2-9/16" deep overall. Units to have front beaded posts. Beaded posts used on open units shall have legs spot welded together on 6" centers for added strength. Legs shall be punched on 3" centers for the attachment of side sway braces.

ANGLE POSTS - Shall be 14 gauge side leg 2-5/16" wide, rear leg is 1-3/16". Post to be offset angle shape. Starter units shall have rear angle posts. Flanges shall be punched on 3" centers for the attachment of side and back sway braces.

TEE POSTS - Shall be two angle posts spot welded together on 6" centers. Adder units shall have rear T posts.

END PANELS - Closed starter units shall have end panels. Each end panel shall consist of one beaded post, one angle post and one 24 gauge side sheet spot welded on 6" centers.

INTERMEDIATE PANELS - Shall be the same as end panels except they shall have 2 angle posts and shall be furnished on closed adder units.

BACKS - Shall be 24 gauge with holes on 1" centers for bolting to angle or tee posts.

SWAY BRACES - Shall be 12 gauge x 3/4" wide ends punched for bolting to posts. Also punched in the middle for bolting to each other for strength and ease of installation.

SHELF CLIP - One piece 13 gauge compression type independently adjustable. Each clip shall bear on the edges of two post notches and provide a minimum of 1-1/2" of bearing. Zinc plated. Provide four independently adjustable clips per shelf.

SHELVES - Shelf shall have a 1-1/4" face on all four sides. Front and rear flanges shall have a 3/4" wide box formation with return flanges spot welded to the shelf bottom on 3" centers. Sides shall have a 5/8" 90° return flange. Corner shall be lapped and spot welded. Heavy duty shelves shall have ribs in the tabs to keep shelf clips snug. Shelves shall be punched for dividers on 1-1/2" centers.

Shelves shall be furnished in heavy duty or extra heavy duty to meet the specified capacity.

SHELF REINFORCING - Shall consist of 13 gauge side shelf supports tabbed to fit into clip slots and 14 gauge center shelf supports. Center support shall be held in place by engaging the side shelf supports. Shelf reinforcing shall be furnished when specified shelf capacity exceeds the rated capacity of the extra heavy duty shelf.

SHELF DIVIDERS - Shall be 24 gauge through 20" high; over 20" high dividers shall be 20 gauge. Fronts of dividers shall have a 5/16" diameter bead. Top, bottom and rear flanges shall be 7/8". Dividers shall be held in place with plastic buttons.

ANGLE DIVIDERS - Shall be 18 gauge and held in place with plastic buttons.

SLIDING DIVIDERS - Shall be 20 gauge. Divider portion shall be sloped at 45° at the front with a 1/2" radius at the front corner.

BASE FRONT - Shall be 18 gauge and attached to the shelf by bolting.

BIN FRONTS - Shall be 18 gauge and attached to the shelf by bolting. Bin fronts shall be 1", 2" or 3" high.

FOOTPLATES - Standard duty foot plate for Beaded, Angle and Tee Post foot plates shall be 2 1/4" x 3 1/2" x 12 ga. with a bracket welded on top. Plate has a 7/16" diameter hole for anchoring and an embossment for shim alignment.

Heavy duty foot plate for Beaded, Angle and Tee Post Footplates are 5 1/2" x 2 3/8" x 7 ga. with two brackets on top. Plate has two 7/16" diameter holes for anchoring.

COUNTER TOPS - Shall be 14 gauge with a 2" high face and 13 gauge counter

end finishing caps attached with concealed nut and bolts.

SHIMS - Shims for use with standard duty foot plates shall be 2 1/4" x 3 1/2" and 16 ga., with 7/16" diameter hole and embossment same as for footplate.

Heavy duty foot plate shims for use with heavy duty foot plate and are 5 1/2" x 2-3/8" x 7 ga. Shim has two 7/16" holes that correspond with holes in the Heavy Duty Foot plate for anchoring.

SWINGING DOORS - Door and frame assembly complete with 3 point locking, chrome plated turn handle with built in lock with two keys. Doors are 20 gauge with reinforcing pans. Frames 16 gauge. Each pair of doors cover one shelving unit.

POST SPLICE CHANNEL - Shall be 16 gauge and formed into a channel shape. Center of channel shall be punched with three holes for assembling to upper and lower post. Used whenever posts are to be spliced to achieve added height.

H-POST - 14 gauge pickled and oiled steel. Post is 1-1/2" O.A. wide x 2-1/4" deep plus a rear flange of 11/16". Rear flange is punched with 5/16" diameter holes on one leg and 13/64" diameter holes on the opposite leg. Holes are on 3" centers for attaching sway braces or side panels.

H-POST SIDE PANELS - 24 gauge. Both vertical sides are punched with 9/32" x 9/16" slots on 3" centers.

H-POST SPLICE - 16 gauge with six 11/32" diameter holes. Part consists of two pieces each formed into a special channel shape and spot welded together. Assembly forms a splice with overall dimensions of 1-5/16" wide x 2-1/32" deep x 9 3/4" high.

H-POST FOOT PLATE - Heavy Duty foot plate consists of a 3-1/2" x 4" plate with four 7/16" diameter holes and a 12 gauge 2" wide channel 1 1/8" web with 1-3/4" legs. Channel web has a 5/8" diameter hole, each leg has a 9/32 x 7/16" slot. Channel is plug welded to the plate through the 5/8" diameter hole.

Light/medium duty foot plates are the same as above except the plate is 2-1/4" x 3-1/2" with one 7/16" diameter hole and one 3/8" diameter embossment.

H-POST SIDE SWAY BRACES - 12 gauge x 3/4" hot rolled pickled & oiled steel. Braces are punched at each end and in the middle with 3/16" diameter holes. Use 1/4 x 1/2" truss head bolts and hex nuts.

SHIM PLATE HEAVY DUTY - 4" x 3-1/2" x 16 gauge with two 7/16" diameter holes, one 27/32" long x 7/16" wide slot and one 3/8" diameter.

SHIM PLATE LIGHT/MEDIUM DUTY - 2-1/4" x 3-1/2" x 16 gauge with one 7/16" diameter hole and one 3/8" diameter embossment.

CONNECTOR STRIPS - Connector strips fasten to H-posts with Tek screws then the back panel is fastened to the connector strip. Starter unit connector strips are 14 gauge, 2-1/16" wide with two rows of 5/16" diameter holes on 1" centers. Adder unit connectors are 14 gauge, 3-1/8" wide with three rows of 5/16" diameter holes on 1" centers.

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Pallet Rack



Introduction

Penco Pallet Rack

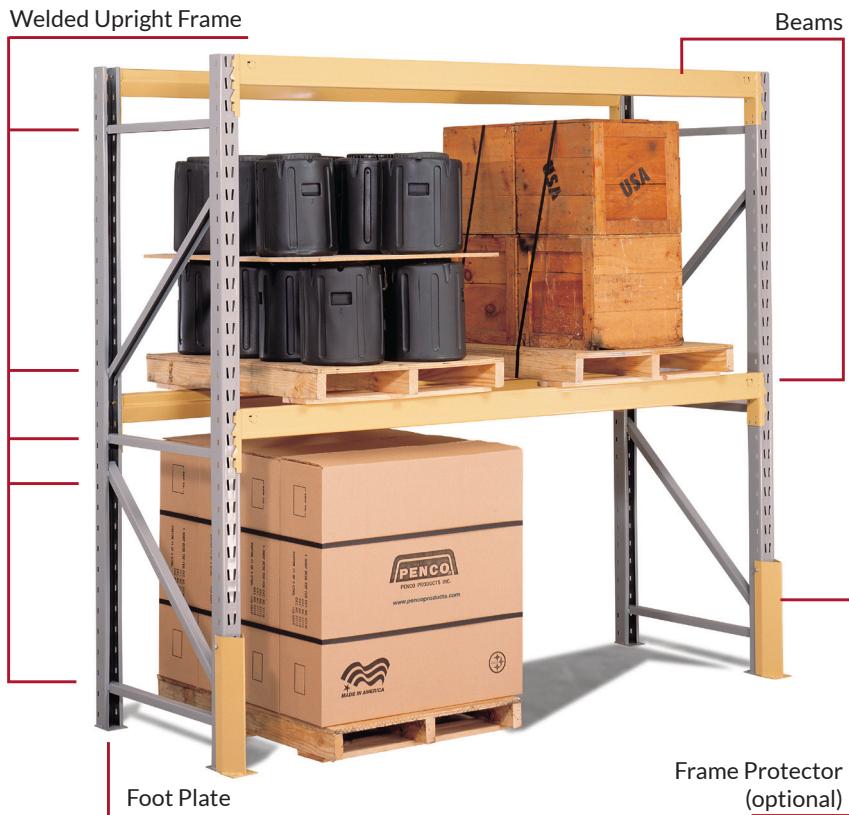
Penco Pallet Rack is a carefully engineered system designed to provide highly efficient storage of palletized items. Combining design and excellence with the use of high strength steel to achieve a superior strength to weight ratio, Penco Pallet Rack can handle nearly any storage job you can give it.

The basic components of Penco Pallet Rack are Upright Frames and Beams. Each is manufactured to exacting tolerances to provide many years of dependable service at their rated loads.

The following pages detail the wide range of sizes, capacities and accessories that make Penco Rack one of the best values for your storage dollar.



Available in
24 Colors
See Page 63



Design Features

Heavy Duty Beam End Connector

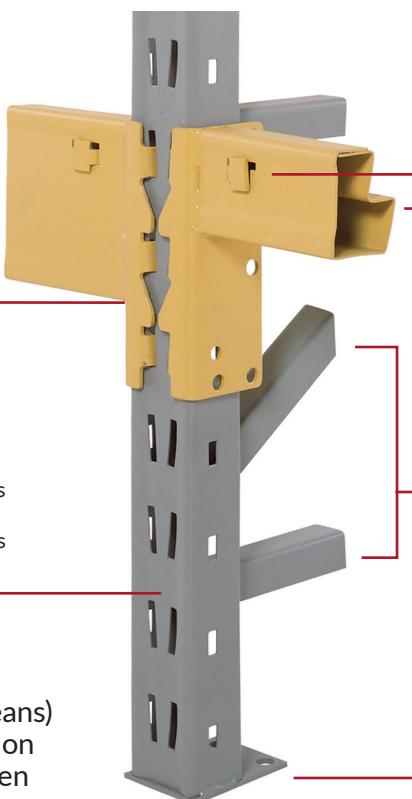
Beam ends are made from extra heavy gauge steel. They feature a three prong connection which assures positive beam to post alignment along the 8-1/2" length of the connector, and uniform load distribution. The greater the load, the tighter the connection. Tabs extend along the face of the beam to provide extra protection to the prongs during transit and installation.

Upright Column

A continuous post roll formed in 5 different shapes and 3 different metal thicknesses to handle a variety of loads. Slanted slots on the column allow for beam placement on 3" vertical centers. Slots on column sides accept the safety beam locking key. The design allows for beams to be placed flush with the top, or as close as 9" from the floor.

PLEASE NOTE:

Ideally the top shelf level (load bearing beans) are 24"-48" fromt he top of the upright. Non load bearing beams should be utilized when top shelf level is more than 48".



Beam Locking Key for Safety

A unique recessed safety key made from heavy gauge steel engages a slot in the side of the post. It resists an upward force from material handling equipment up to 1000 pounds. It is an integral part of the beam assembly, can be engaged easily without tools, and is clearly visible for checking.

Step Down Design

All beams have a step for the purpose of accepting accessories. Two step sizes are available: 7/8" and 1-5/8" high.

Welded Upright Frame Bracing

Upright frame columns are securely MIG welded together with channel type braces for maximum rigidity.

Foot Plate

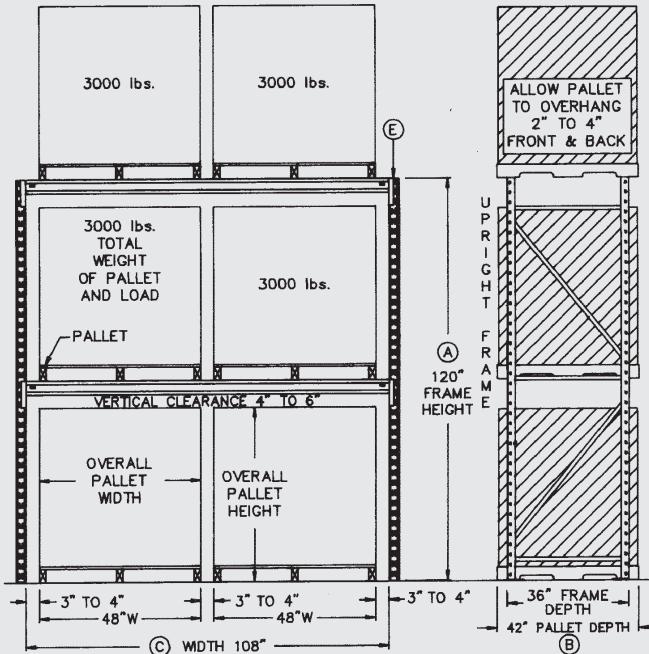
A heavy gauge foot plate is securely welded to each post to provide load distribution over 13.7 square inches, and two holes allow for floor anchoring from either side of the frame.

Pallet Rack

Design Considerations

Determining Pallet Rack Needs

- A. **Height:** Measure the vertical dimensions of the pallet, pallet load and beam. Add an extra 4" to 6" clearance between bottom of beam above and top of load on pallet. Top beam should be at least 6" lower than the maximum lifting height of your forklift.
- B. **Depth:** Measure the depth of the pallet. Pallet should overhang the frame by 3" front and back. (Example: for a 48" deep pallet use a 42" deep frame).
- C. **Width:** Measure the width of the load and pallet, and use the greater of the two. Add 3" to 4" between loads, and between loads and upright frames to determine correct beam length. Select beams with a capacity equal to or greater than the total load of each level. (See "How to Order Beams" on the Pallet Rack Beam page).
- D. **Frame Capacity:** Add the total weight of all loads for each bay, excluding the pallets on the floor (a bay is the space between two upright frames).
- E. **Frame:** A common frame should be used between each bay.



Pallet Rack Plus - An option for severe conditions or high seismic activity

Penco Pallet Rack Plus is engineered for use in areas where high seismic activity or other severe conditions exist. Load capacities are the same as the standard pallet rack shown in this catalog, however the frames and beams are more resistant to horizontal and vertical forces that could damage standard rack and its load. To learn the seismic rating where your pallet rack will be in use, contact your Penco representative.

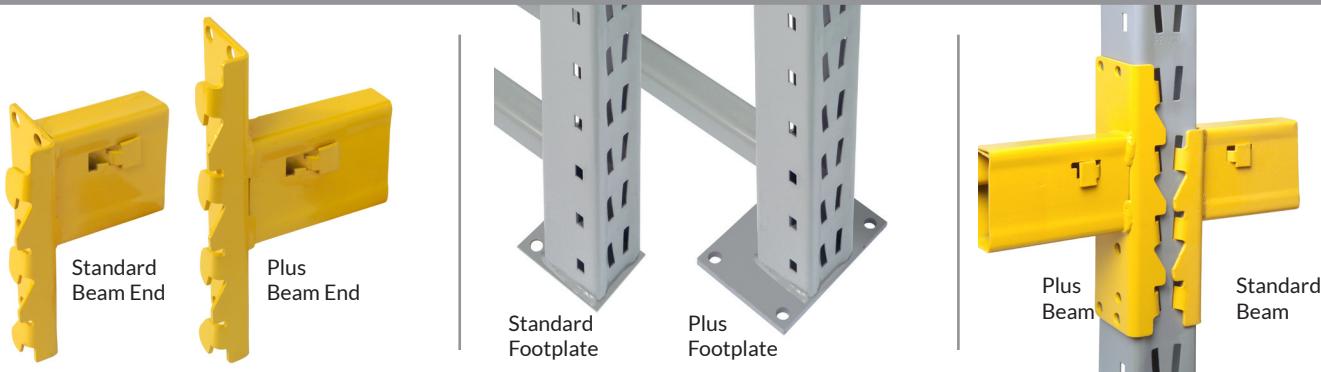
Plus Beam End Connectors:

The Plus beams have 4 connectors instead of 3 for a stronger connection between

the beam and the upright post to resist conditions with higher lateral forces. The beam is welded 3" down from the top of the connector so loading is evenly distributed across all four connector prongs. The beam locking key is the same as used on standard beams.

Plus Upright Frames with Large Footplates:

Each Plus upright frame has two 5" x 7" x 3/8" thick footplates with four 9/16" diameter anchoring holes. The extra holes provide the installer with more choices for floor anchoring.



Pallet Rack

Upright Frames



Penco Pallet Rack Upright Frames are available in five load capacities. A letter code stamped into the face of the post indicates the frame type. Depths of 30", 36", 42", 48", 54" and 60" are standard, but other depths and double-posted and cantilever frames are available. Standard heights range from 48" to 240" in 6" increments, but greater heights can be achieved when splices are used.

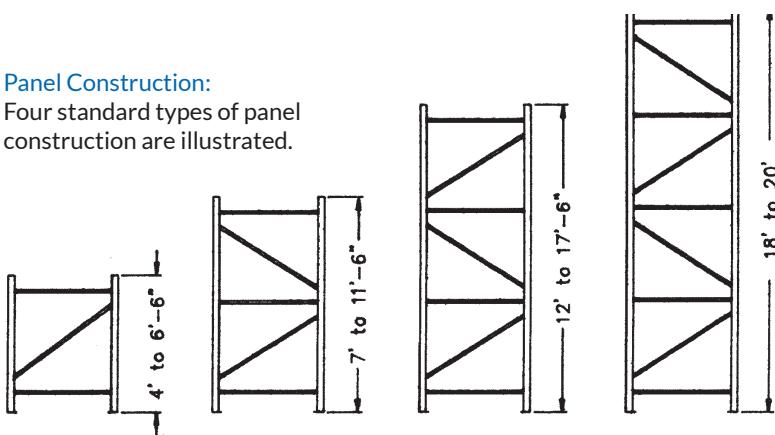
Beam heights adjust on 3" vertical centers, and are independent on each side of the frame. Beams of any type can be placed along the full height of the post; there are no dead spots on the post, even across a splice. Various load rated frames can be combined in a row of rack for maximum economy.

Penco Pallet Rack Upright Frames are furnished completely fabricated, welded into rigid units.



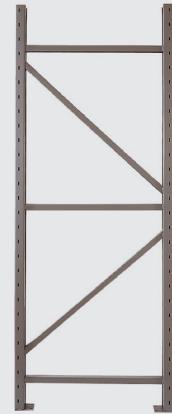
Panel Construction:

Four standard types of panel construction are illustrated.



How To Select Upright Frame Type

1. Determine the maximum vertical opening dimension between pairs of beams or between the lowest beam level and the floor.
2. Calculate the total load imposed on the upright frame.
3. Using the charts below, find the maximum vertical spacing between beams along the bottom scale, and then draw a vertical line to intersect the lines representing the capacities of the five types of upright frames. Select the frame that has a capacity that equals or exceeds the total load imposed upon it by all beam levels.



| Upright Frame Types | | | | |
|---------------------|------------|--|------------|------------|
| Frame Types | Post Width | | Post Depth | Post Gauge |
| F | 3" | | 1-3/4" | 14 |
| G | 3" | | 2-1/4" | 14 |
| P | 3" | | 3" | 14 |
| R | 3" | | 3" | 13 |
| T | 3" | | 3" | 12 |

| Frame Type | Upright Frame Capacity | | | | | | | | | | | |
|------------|------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | 24" | 30" | 36" | 42" | 48" | 54" | 60" | 66" | 72" | 78" | 84" | 90" |
| F | 22,555 | 21,213 | 19,853 | 18,528 | 16,929 | 15,381 | 13,543 | 11,773 | 9,824 | 8,439 | 7,216 | 6,336 |
| G | 26,512 | 25,236 | 23,839 | 22,311 | 20,663 | 18,904 | 17,025 | 15,015 | 12,864 | 10,774 | 9,306 | 8,110 |
| P | 32,751 | 31,227 | 29,555 | 27,932 | 25,965 | 24,342 | 21,871 | 19,203 | 17,212 | 14,630 | 12,540 | 11,026 |
| R | 39,108 | 37,264 | 35,464 | 33,266 | 30,891 | 28,339 | 25,934 | 23,043 | 19,959 | 17,245 | 14,796 | 12,834 |
| T | 45,629 | 43,478 | 41,102 | 38,503 | 35,715 | 32,703 | 29,897 | 26,489 | 22,875 | 19,432 | 16,713 | 14,527 |

The table above indicates capacities for various vertical beam spacings for the different Penco upright frame types. Load data shown is for preliminary consideration only. Each installation must be individually evaluated for actual conditions and the use of each element in relation to the entire system with all aspects of the structural function.

Pallet Rack

Rigid Row Spacer

Structurally connects and spaces two rows of rack back-to-back. Bolted type. Hardware included.



Rigid Row Spacer

| Space | Cat. No. |
|-------|----------|
| 6" | 5AR506 |
| 8" | 5AR508 |
| 10" | 5AR510 |
| 12" | 5AR512 |
| 18" | 5AR518 |
| 24" | 5AR524 |
| 30" | 5AR530 |
| 36" | 5AR536 |
| 42" | 5AR542 |
| 48" | 5AR548 |
| 54" | 5AR554 |
| 60" | 5AR560 |

Rigid Wall Spacer

Assures that uniform spacing between pallet rack and building wall is maintained. Frame hardware included.



Rigid Wall Spacer

| Space | Cat. No. |
|-------|----------|
| 4" | 5AR404 |
| 6" | 5AR406 |
| 8" | 5AR408 |
| 10" | 5AR410 |
| 12" | 5AR412 |
| 18" | 5AR418 |

Reel Holder

Accessories rack for reel storage. Max. axle 2-1/2" dia. Cat. No. 5AH000



Concrete Floor Anchor

To anchor pallet rack upright frames to a concrete floor. 1/2" diameter x 3-3/4". High seismic areas may require other floor anchors. Check with local permitting agency for assistance, if required. Cat. No. 9580



Frame Protector

Anchors to floor at front of post. Provides protection against damage from material handling vehicles. NOT for use on Pallet Rack PLUS upright frames. Includes hardware to fasten to post only. 18" high. Cat. No. 5AF018



Frame Deflector

Fastens to post only, usually 1-1/2" above the footplate. Includes hardware to bolt to post. 18" High. Cat. No. 5AF021PC



Frame Splice

For adding to height of existing frame. Can be supplied welded in top of new frame if specified on order. (Top frame must be ordered without foot plate.) With hardware.



Frame Splice

| Frame Type | Cat. No. |
|------------|----------|
| F, G, P | 5AU008P |
| R, T | 5AU018P |

Upright Frame Accessories

Upright Frames - Available Sizes

| Frame Height | Frame Depths | | | | | |
|--------------|--------------|-----|-----|-----|-----|-----|
| | 30" | 36" | 42" | 48" | 54" | 60" |
| 48" | I | I | I | I | I | I |
| 54" | I | I | I | I | I | I |
| 60" | I | I | I | I | I | I |
| 66" | I | I | I | I | I | I |
| 72" | I | I | I | I | I | I |
| 78" | I | I | I | I | I | I |
| 84" | I | I | I | I | I | I |
| 90" | I | I | I | I | I | I |
| 96" | I | I | I | I | I | I |
| 102" | I | I | I | I | I | I |
| 108" | I | I | I | I | I | I |
| 114" | I | I | I | I | I | I |
| 120" | I | I | I | I | I | I |
| 126" | I | I | I | I | I | I |
| 132" | I | I | I | I | I | I |
| 138" | I | I | I | I | I | I |
| 144" | I | I | I | I | I | I |
| 150" | I | I | I | I | I | I |
| 156" | I | I | I | I | I | I |
| 162" | I | I | I | I | I | I |
| 168" | I | I | I | I | I | I |
| 174" | I | I | I | I | I | I |
| 180" | I | I | I | I | I | I |
| 186" | I | I | I | I | I | I |
| 192" | I | I | I | I | I | I |
| 198" | I | I | I | I | I | I |
| 204" | I | I | I | I | I | I |
| 210" | I | I | I | I | I | I |
| 216" | I | I | I | I | I | I |
| 222" | I | I | I | I | I | q |
| 228" | I | I | I | I | I | q |
| 234" | I | I | I | I | I | q |
| 240" | I | I | I | I | I | q |

I = Available q = Not Available

To add height to an Upright Frame, a splice can be added. For more information on splicing frames see the Frame Splice to the left.

Upright Frame Catalog # System

| Position | 1 | 2 | 3 | 4 | 5 |
|----------|---|---|---|---|-----|
| Cat. No. | 5 | F | E | 0 | 9 |
| | | | | | 6 C |

DESCRIPTION OF PART NO. SEQUENCE:

1. Always a 5
2. Capacity code for frame (See Pallet Rack Frame Capacities Table).
3. Depth code for frame (B = 30", E = 36", H = 42", L = 48", P = 54", S = 60")
4. Height of upright frame in inches (for example, 096 = 96 inches).
5. Always ends in "C"

Pallet Rack



Pallet Rack Beams

One Piece Beam Design

Penco has engineered its roll-formed one piece beams to achieve the highest possible strength-to-weight ratios in the most frequently desired load ratings through the use of efficient design and high strength steel.

Beams are offered in eight basic styles with different vertical profiles and steel gauges. Beam step heights of 7/8" and 1-5/8" are available for a wide variety of accessory use. Both the overlapping seam and the beam end connector are securely MIG welded for strength.

The face of the beam has an M-design recessed configuration for added strength, protecting the locking key, and to accept pressure sensitive labeling. Each beam is stamped with an identifying letter referring to the load bearing capacity. Beams are shown in 710 Yellow.

How to Order Beams

1. Select the Required Clear Span (distance between posts). Allow for a minimum of 3" between pallet and post, and a minimum of 4" between adjacent pallets. Allow additional separation if load overhangs the pallet. For sizes not shown, contact your Penco representative.

2. Determine the Required Capacity. Add up the maximum load to be placed on one pair of beams. Remember that capacities are based on evenly distributed loading, not point loading.

Beam Selection

| Clear Span* | Beam Selection | | | | | | | | | | | | | |
|-------------|---------------------|-------------------|---------------------|-------------------|---------------------|-------------------|---------------------|-------------------|---------------------|-------------------|---------------------|-------------------|---------------------|-------------------|
| | Capacity Per Pair** | Cat. No. Per Pair | Capacity Per Pair** | Cat. No. Per Pair | Capacity Per Pair** | Cat. No. Per Pair | Capacity Per Pair** | Cat. No. Per Pair | Capacity Per Pair** | Cat. No. Per Pair | Capacity Per Pair** | Cat. No. Per Pair | Capacity Per Pair** | Cat. No. Per Pair |
| 48" | 8920 lb | 5BB048 | 8380 lb | 5BD048 | 9340 lb | 5BH048 | 10670 lb | 5BJ048 | 12170 lb | 5BN048 | - | - | - | - |
| 54" | 7920 lb | 5BB054 | 7445 lb | 5BD054 | 8370 lb | 5BH054 | 9480 lb | 5BJ054 | 10810 lb | 5BN054 | - | - | - | - |
| 60" | 7120 lb | 5BB060 | 6695 lb | 5BD060 | 7530 lb | 5BH060 | 8520 lb | 5BJ060 | 9730 lb | 5BN060 | - | - | - | - |
| 66" | 6470 lb | 5BB066 | 6080 lb | 5BD066 | 6840 lb | 5BH066 | 7740 lb | 5BJ066 | 8830 lb | 5BN066 | - | - | - | - |
| 72" | 5920 lb | 5BB072 | 5570 lb | 5BD072 | 6260 lb | 5BH072 | 7090 lb | 5BJ072 | 8090 lb | 5BN072 | 9560 lb | 5BS072 | - | - |
| 78" | 5460 lb | 5BB078 | 5135 lb | 5BD078 | 5770 lb | 5BH078 | 6540 lb | 5BJ078 | 7460 lb | 5BN078 | - | - | 10220 lb | 5BX078 |
| 84" | 5070 lb | 5BB084 | 4760 lb | 5BD084 | 5360 lb | 5BH084 | 6060 lb | 5BJ084 | 6920 lb | 5BN084 | - | - | 9480 lb | 5BX084 |
| 90" | 4720 lb | 5BB090 | 4430 lb | 5BD090 | 4990 lb | 5BH090 | 5650 lb | 5BJ090 | 6450 lb | 5BN090 | 7630 lb | 5BS090 | 8840 lb | 5BX090 |
| 96" | 4420 lb | 5BB096 | 3990 lb | 5BD096 | 4670 lb | 5BH096 | 5290 lb | 5BJ096 | 6040 lb | 5BN096 | 7190 lb | 5BS096 | 8280 lb | 5BX096 |
| 102" | 4160 lb | 5BB102 | 3530 lb | 5BD102 | 4390 lb | 5BH102 | 4980 lb | 5BJ102 | 5680 lb | 5BN102 | 6720 lb | 5BS102 | 7790 lb | 5BX102 |
| 108" | 3920 lb | 5BB108 | 3150 lb | 5BD108 | 3990 lb | 5BH108 | 4690 lb | 5BJ108 | 5340 lb | 5BN108 | 6340 lb | 5BS108 | 7350 lb | 5BX108 |
| 114" | 3540 lb | 5BB114 | 2830 lb | 5BD114 | - | - | 4440 lb | 5BJ114 | - | - | - | - | 6950 lb | 5BX114 |
| 120" | 3190 lb | 5BB120 | 2550 lb | 5BD120 | 3230 lb | 5BH120 | 4130 lb | 5BJ120 | 4810 lb | 5BN120 | 5690 lb | 5BS120 | 6600 lb | 5BX120 |
| 126" | 2900 lb | 5BB126 | 2310 lb | 5BD126 | - | - | - | - | 4570 lb | 5BN126 | 5410 lb | 5BS126 | 6270 lb | 5BX126 |
| 132" | 2840 lb | 5BB132 | - | - | - | - | - | - | 4410 lb | 5BN132 | 5160 lb | 5BS132 | 5980 lb | 5BX132 |
| 138" | 2410 lb | 5BB138 | - | - | - | - | - | - | 4030 lb | 5BN138 | - | - | 5710 lb | 5BX138 |
| 144" | 2220 lb | 5BB144 | - | - | 2240 lb | 5BH144 | - | - | - | - | 4740 lb | 5BS144 | 5500 lb | 5BX144 |
| | | | | | | | | | | | 7340 lb | | 5BY144 | |

NOTE: Beam Capacity is reduced if loading is on the step only, unless beams are stabilized by some form of front to back tie.

* Clear span is measured from inside frame to inside frame.

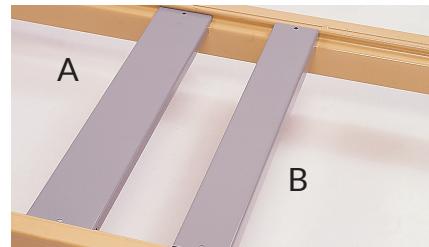
** Capacity of beam pairs in pounds is calculated in compliance with RMI Specifications and AISI Standard. Calculations assume uniform load distribution. Beams of 138" and 144" span require a minimum of two(2) Heavy Duty Cross Bars.

Pallet Rack

Beam Accessories

Cross Bars

7/8" Step Beams



A. - 1/2" Plywood Support

Supports sheets of 1/2" Plywood.

A - 1/2" Plywood Support

| Frame Depth | Cat. No. |
|-------------|----------|
| 30" | 5AP230C |
| 36" | 5AP236C |
| 42" | 5AP242C |
| 48" | 5AP248C |

B. - General Duty Cross Bar

For supporting loads smaller than unit depth.

B - General Duty Cross Bar

| Frame Depth | Cat. No. |
|-------------|----------|
| 30" | 5AX530C |
| 36" | 5AX536C |
| 42" | 5AX542C |
| 48" | 5AX548C |
| 54" | 5AX554C |
| 60" | 5AX560C |



Coil Bed

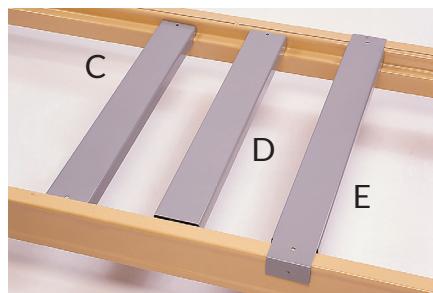
Full depth.
For proper placement and storage of cylindrical items.

Coil Bed

| Frame Depth | Cat. No. |
|-------------|----------|
| 30" | 5AC030C |
| 36" | 5AC036C |
| 42" | 5AC042C |
| 48" | 5AC048C |

Cross Bars

1-5/8" Step Beams



C. - 3/4" Plywood Support

Supports sheets of 3/4" Plywood.

C - 3/4" Plywood Support

| Frame Depth | Cat. No. |
|-------------|----------|
| 30" | 5AP330 |
| 36" | 5AP336 |
| 42" | 5AP342 |
| 48" | 5AP348 |
| 54" | 5AP354 |
| 60" | 5AP360 |

D. - General Duty Cross Bar

Supports loads smaller than unit depth on 1-5/8" step beams. Not for plywood.

D - General Duty Cross Bar

| Frame Depth | Cat. No. |
|-------------|----------|
| 30" | 5AX630C |
| 36" | 5AX636C |
| 42" | 5AX642C |
| 48" | 5AX648C |
| 54" | 5AX654C |
| 60" | 5AX660C |

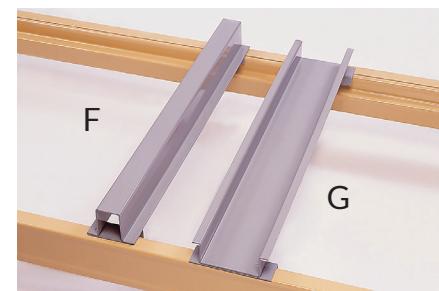
E. - Heavy Duty Flanged Cross Bar

Supports heavier loads smaller than unit depth on 1-5/8" step beams.

E - HD Flanged Cross Bar

| Frame Depth | Cat. No. |
|-------------|----------|
| 30" | 5AX730C |
| 36" | 5AX736C |
| 42" | 5AX742C |
| 48" | 5AX748C |
| 54" | 5AX754C |
| 60" | 5AX760C |

Fork Clearance Bar and Heavy Duty Skid Channel



F. - Fork Clearance Bar

Provides proper fork clearance for unpalletized stock, 2" wide by 2-3/4" high.

F - Fork Clearance Bar

| Frame Depth | Cat. No. |
|-------------|----------|
| 30" | 5AF330C |
| 36" | 5AF336C |
| 42" | 5AF342C |
| 48" | 5AF348C |
| 54" | 5AF354C |
| 60" | 5AF360C |

G. - Heavy Duty Skid Channel Assembly

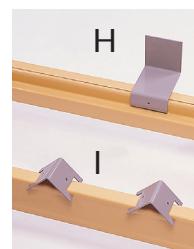
Provides a channelled base for skid runners, 4" wide by 2" high.

G - HD Skid Channel Assembly

| Frame Depth | Cat. No. |
|-------------|----------|
| 30" | 5AS230C |
| 36" | 5AS236C |
| 42" | 5AS242C |
| 48" | 5AS248C |

H. - Pallet Stop

Attaches to rear beam with Tek screw. Cat. No. 08822 included. For 1-5/8" step beam only. In Pairs. Cat. No. 5AT00H



I. - Drum Wedge

Two loose triangular stops for drum storage. Install on front beam only. In Pairs. Cat. No. 5AW000

Pallet Rack



Pallet Rack Specifications

PALLET RACK: The basic components of Standard Penco Pallet Rack are Upright Frames and Beams. Each is manufactured to exacting tolerances to provide many years of dependable service at their rated loads.

Step Down Design: All beams have a step for the purpose of accepting accessories. Two step sizes are available: 7/8" and 1-5/8" high.

Beam Locking Key For Safety: A unique recessed safety key made from heavy gauge steel engages a slot in the side of the post. As soon as beams are installed, the locking keys should be slid into place. They will resist an upward force from material handling equipment up to 1000 pounds. It is an integral part of the beam assembly, can be engaged easily without tools, and is clearly visible for checking.

Heavy Duty Beam End Connector: Beam ends are made from extra heavy gauge steel. They feature a three prong connection which assures positive beam to post alignment along the 8-1/2" length of the connector, and uniform load distribution. Tabs extend along the face of the beam to provide extra protection to the prongs during transit and installation.

Heavy Duty Beam End Connector (Pallet Rack Plus): Pallet Rack Plus beams are intended for use in severe conditions or high seismic areas and have four pronged end frame connectors. The beams are centered along the 11 1/2" long connector so all prongs share equally in the live beam load. Any Penco pallet rack beam can be equipped with four-pronged connectors.

Welded Upright Frame Bracing: Upright frame columns are securely MIG welded together with channel type braces for maximum rigidity.

Upright Column: A continuous post roll formed into an "M" design for added strength. Slanted slots on the column allow for beam placement on 3" vertical centers. The greater the unit load the tighter the beam-upright connection becomes. Slots on column sides accept the safety beam locking key. The design allows for standard beams to be placed flush with the top, or as close as 9" from the floor.

Upright Column (Pallet Rack Plus): A continuous post roll formed into an "M" design for added strength. Slanted slots on the column allow for beam placement on 3" vertical centers. The greater the unit load the tighter the beam-upright connection becomes. All Plus pallet rack beams are attached 3" down from the top of the heavy duty connector and cannot be installed flush with the top of the uprights. Plus beams can be placed within 9" above the floor.

Foot Plate: A heavy gauge foot plate is securely welded to each post to provide load distribution over 13.7 square inches, and two 9/16" holes allow for floor anchoring on either side of the frame. Standard duty foot-plates are 7 ga. thick.

Foot Plate (Pallet Rack Plus): All pallet rack Plus upright frames have foot-plates that are 35 square inches and 3/8" thick. Four 9/16" holes are present at the corners for anchoring.

Pallet Rack Frames: Penco Pallet Rack Upright Frames are available in five different load carrying ranges. A letter code stamped into the face of the post indicates the frame type. Depths of 30", 36", 42", 48", 54" and 60" are standard, but other depths are available. Standard heights range from 48" to 240" in 6" increments, but greater heights can be achieved when splices are used. Double posted and cantilever leg custom upright configurations are available upon request. Beam heights adjust on 3" vertical centers, and are independent on each side of the frame. Various load rated frames can be combined in a row of rack for maximum economy. Beams cannot be placed at locations where a splice is positioned. Penco Pallet Rack Upright

Frames are furnished completely fabricated, welded into rigid units. Standard finish for upright frames is 028 Gray baked enamel. Other standard Penco colors are available upon request.

We recommend that all upright frames be securely anchored to the floor for safety. Seismic conditions and local codes may require anchors other than the Penco 1/2"-13 x 3 3/4" wedge anchor be used. We suggest you check with local code officials about anchoring as many jurisdictions have approved different anchors.

Pallet Rack Beams: Penco has engineered its roll-formed one piece beam to achieve the highest possible strength-to-weight ratios in the most frequently desired load ratings through the use of efficient design and high strength steel. Beams are offered in eight basic styles with different vertical profiles and steel gauges. Beam step heights of 7/8" and 1-5/8" are available for a wide variety of accessory use. Both the overlapping seam and the beam end connector are securely MIG welded for strength. The face of the beam has an M-design recessed configuration for added strength, protecting the locking key, and to accept pressure sensitive labeling. Each beam is stamped with an identifying letter referring to the load bearing capacity. Beams are finished in 710 Sagebrush Yellow baked enamel for high visibility. Safety Yellow and any other standard Penco colors are available upon request.

PALLET RACK ACCESSORIES

Plywood Supports: For supporting plywood or other wood decking. Styles are available for 1/2" deck on 7/8" step beams and 3/4" deck on 1-5/8" step beams.

General Duty Cross Bars: For supporting loads smaller than unit depth.

Heavy Duty Flanged Cross Bar: Supports heavier loads smaller than unit depth on 1-5/8" step beams.

Fork Clearance Bar: Provides proper fork clearance for unpalletized stock, 2" wide by 2-3/4" high.

Heavy Duty Skid Channel Assembly: Provides a channeled base for skid runners, 4" wide by 2" high.

Frame Splice: For adding to height of existing frame. Can be supplied welded in top of new frame if specified on order. (Top frame must be ordered without foot plate.) Hardware provided.

Frame Protector: Anchors to floor at front of post. Provides protection against damage from material handling equipment.

Frame Deflector: Fastens to front of upright post on 3" increments.

Rigid Wall Bracket: Structurally connects racks to wall for additional stability. Frame hardware included.

Rigid Row Spacer: Structurally connects and spaces two rows of rack back-to-back to satisfy NFPA requirements. Bolted into place. Hardware included.

Reel Holder: Accessorizes rack for elevated reel storage. Capacity is 1,000 lbs./pair and they can hold axels up to 2 1/2" diameter. Hardware included.

Decking: Decking for Pallet Rack is available in a number of formats that include wire, steel and wood.

PENCO RESERVES THE RIGHT TO VARY SPECIFICATIONS CONSISTENT WITH A POLICY OF CONTINUOUS PRODUCT IMPROVEMENT.

Pallet Rack

Pallet Rack Plus Specifications

PALLET RACK PLUS: The basic components of Penco Pallet Rack Plus are Upright Frames and Beams. Each is manufactured to exacting tolerances to provide many years of dependable service at their rated loads. Other components and accessories are available

Step Down Design: All beams have a step for the purpose of accepting accessories. Two step sizes are available: 7/8" and 1-5/8" high.

Beam Locking Key for Safety: A unique recessed safety key installed into each beam connector that is made from heavy gauge steel engages a slot in the side of the post. As soon as beams are installed, the locking key should be slid into place. They will resist an upward force from material handling equipment up to 1000 pounds. It is an integral part of the beam assembly, can be engaged easily without tools, and is clearly visible for checking.

Heavy Duty Beam End Connector: Pallet Rack Plus beams are intended for use in severe conditions or high seismic areas and have four pronged end frame connectors. The beams are centered along the 11 1/2" long connector so all prongs share equally in the live beam load. Any Penco pallet rack beam can be equipped with four-pronged connectors.

Welded Upright Frame Bracing: Upright frame columns are securely MIG welded together with channel type braces for maximum rigidity.

Upright Column: A continuous post roll formed into an "M" design for added strength. Slanted slots on the column allow for beam placement on 3" vertical centers. The greater the unit load the tighter the beam-upright connection becomes. All Plus pallet rack beams are attached 3" down from the top of the heavy duty connector and cannot be installed flush with the top of the uprights. Plus beams can be placed within 9" above the floor.

Foot Plate: All pallet rack Plus upright frames have footplates that are 35 square inches and 3/8" thick. Four 9/16" holes are present at the corners for anchoring.

PALLET RACK FRAMES: Penco Pallet Rack Plus Upright Frames are available in five different load carrying ranges. A letter code stamped into the face of the post indicates the frame type. Depths of 30", 36", 42", 48", 54" and 60" are standard, but other depths are available. Standard heights range from 48" to 240" in 6" increments, but greater heights can be achieved when upright frames are spliced together. Double posted and Cantilever leg custom upright configurations are available upon request. Beam heights adjust on 3" vertical centers, and are independent on each side of the frame. Various load rated frames can be combined in a row of rack for maximum economy. Beams cannot be placed at locations where a splice is positioned. Penco Pallet Rack Upright Frames are furnished completely fabricated, welded into rigid units. Standard finish for upright frames is 028 Gray baked powdercoat enamel. Other standard Penco colors are available upon request. We recommend that all upright frames be securely anchored to the floor. Seismic conditions and local codes may require anchors other than the Penco 1/2"-13 x 3 3/4" wedge anchor be used. We suggest you check with local code officials about anchoring as many jurisdictions have approved different anchors.

PALLET RACK BEAMS: Penco has engineered its roll-formed one piece beam to achieve the highest possible strength-to-weight ratios in the most frequently desired load ratings through the use of efficient design and high strength steel. Beams are offered in eight basic styles with different vertical profiles and steel gauges. Beam step heights of 7/8" and 1-5/8" are available for a wide variety of accessory use. Both the overlapping seam and the beam end connector are securely MIG welded for strength. The face of the beam has an M-design recessed configuration for added strength, protecting the locking key, and to accept pressure sensitive labeling. Each beam is stamped with an identifying letter referring to the load bearing capacity. Beams are finished in 710 Sagebrush Yellow baked enamel for high visibility. Safety Yellow and any other standard Penco colors are available upon request.

PALLET RACK ACCESSORIES

Plywood Supports: For supporting plywood or other wood decking. Styles are available for 1/2" deck on 7/8" step beams and 3/4" deck on 1-5/8" step beams.

General Duty Cross Bars: For supporting loads smaller than unit depth.

Heavy Duty Flanged Cross Bars: Supports heavier loads smaller than upright end frame depth. Only available for use with 1-5/8" step beams.

Fork Clearance Bar: Provides proper fork clearance for loads not on pallets. Fork clearance bars are 2" wide by 2-3/4" high.

Heavy Duty Skid Channel Assembly: Provides a channeled base for skid runners, 4" wide by 2" high.

Frame Splice: For adding to height of existing frame. Can be supplied welded in top of new frame if specified on order. (Top frame must be ordered without foot plate.) With hardware. Can be used with standard or Plus uprights. Length of splice allows for two bolt locations on each side of the splice joint. Hardware for attachment is included. Top frames must be ordered without footplates.

Frame Protector: Anchors to floor at front of post. Provides protection against damage from material handling vehicles.

Frame Deflector: Fastens to front upright post on 3" increments.

Rigid Wall Bracket: Structurally connects racks to wall for additional stability. Frame hardware included.

Rigid Row Spacer: Structurally connects and spaces two rows of rack back-to-back to satisfy NFPA requirements. Bolted type. Hardware included.

Reel Holder: Accessorizes pallet rack for elevated reel storage. Capacity is 1,000 lbs/pair and they can hold axles up to 21/2" diameter. Hardware is included.

Decking: Decking for pallet rack is available in a number of formats that include wire, steel and wood.

24 Brilliant Colors



NOTE: Colors shown are as close to actual finishes as the printing process allows. Do not make your final color selection based on the color shade shown on this page. Penco Color Charts are available for a more accurate color match. Exposure to high humidity, chlorine salts, abrasive cleaners, germicidal cleaners and acids can damage the finish and will void the guarantee. For outdoor applications or other harsh environmental conditions, contact your Penco representative.

Standard Colors

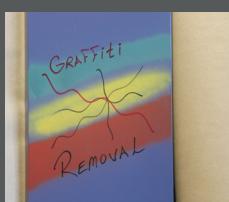
To assure rust resistance and paint adhesion, all Penco steel products receive a state of the art pre-paint conditioning that includes a thorough cleansing by a hot spray washing process, then a specially formulated coating is applied creating a surface that resists corrosion and improves paint adhesion. All lockers are available in the 24 colors shown above.

Standard Powder Coat Finish

Penco's standard 1 mil thick paint finish is perfect for most applications. The paint surface is tough and durable and offers a beautiful drip-free surface, excellent edge coverage and environmentally friendly application.

Antimicrobial Paint

Antimicrobial Paint finishes offer an added level of protection against virus and disease-causing micro-organisms while increasing resistance to stain and odor-causing bacteria, yielding an easier-to-clean product with extended durability and aesthetic appeal.



Supplies needed:
99% isopropyl
alcohol, water,
cleaning cloths, eye
and hand protection.

X-Off™ Anti-Graffiti Paint

Penco's optional X-Off Anti-Graffiti Paint for lockers provides a surface coating that allows easy removal of graffiti with alcohol and water. This specially formulated paint has a tight molecular structure that completely seals the locker surface, preventing graffiti and corrosive agents from penetrating the finish.



GREENGUARD

All products manufactured by Penco Products are GREENGUARD Gold Certified through UL Environment's GREENGUARD Certification Program. This certification signifies that Penco's products are now in compliance with the stringent chemical emissions guidelines set by UL Environment. Accredited courses are available to design professionals and fulfill credit requirements for AIA, GBCI, IDCEC. Contact a Penco Sales Manager for more information.

ENVIRONMENTAL INFORMATION

- Based upon the most recent information from our source mills, the recycled content of our steel lockers can range from 25% to over 50%. Because the percentage of recycled content may vary from project to project based on a number of variables, please contact our offices for detailed information on your specific requirement.
- Powder coating drastically reduces waste through high efficiency application & recovery methods.
- Penco's powder coat paint contains no solvents and as a result releases no Volatile Organic Compounds (VOC's) normally associated with wet paint processes.
- Our packaging contains at least 20% post-consumer recycled content.
- Approximately 34% of the U.S. population lives within a 500 mile radius of our manufacturing facility, requiring less fuel to ship our products to many destinations.

Corporate Information



The parent company of Penco Products and its affiliates is Industrial Manufacturing Company (IMC). IMC and its international arm, IMCI, are a proud family of companies that produce a wide variety of innovative products for industry.

With more than 3,500 direct employees and over 34 worldwide manufacturing, sales and distribution facilities, we provide tier-one products and services to some of the most demanding industries imaginable.

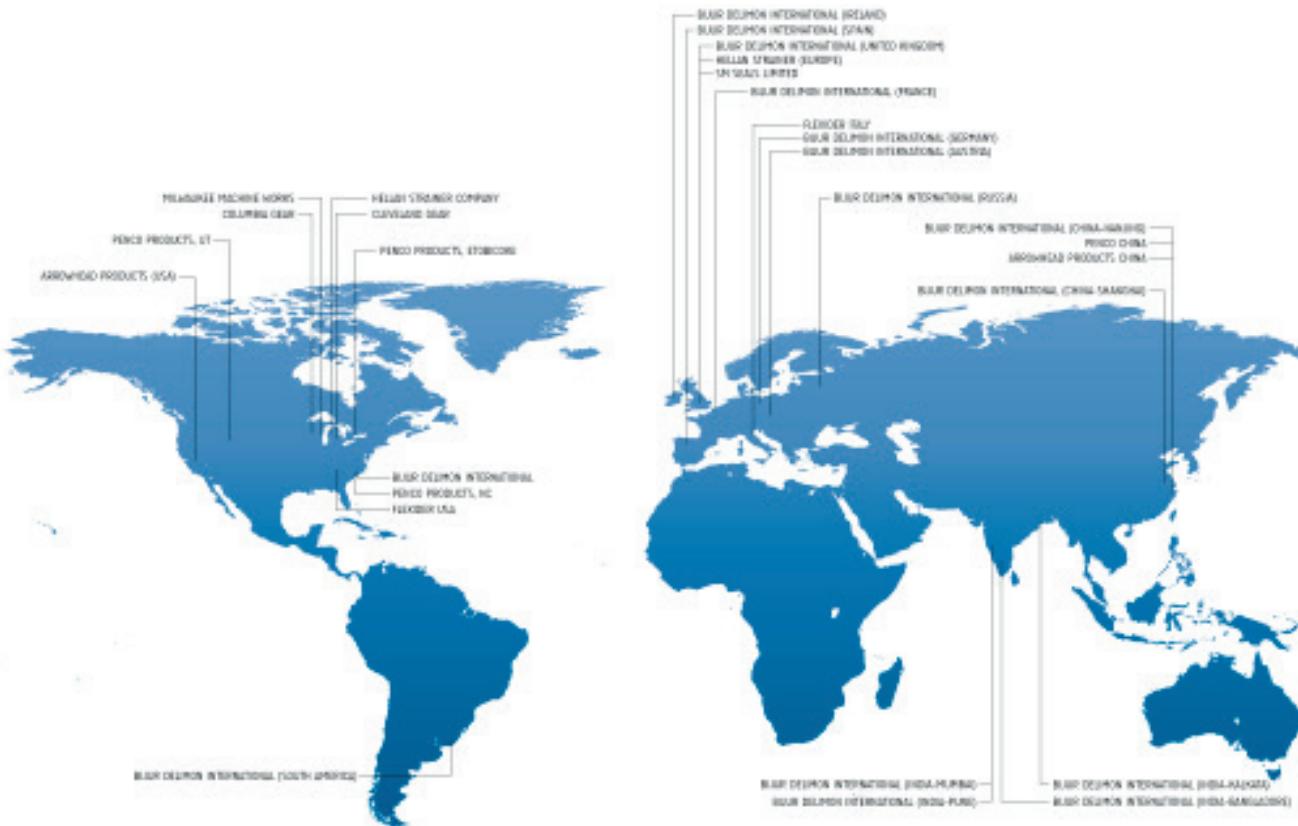
This vast diversity of global resources and networking infrastructure allows us to utilize the strengths of each company, learn from each other and create a technological advantage within each industry. Common to every associate in our family

of companies, is the profound respect for and the integrity of established industrial principles and practical openness to applications of new technology. With individual company histories spanning decades, and in two cases, more than a century, the IMC and IMCI companies are time-tested leaders in their national and global markets.



INDUSTRIAL MANUFACTURING COMPANY INTERNATIONAL

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