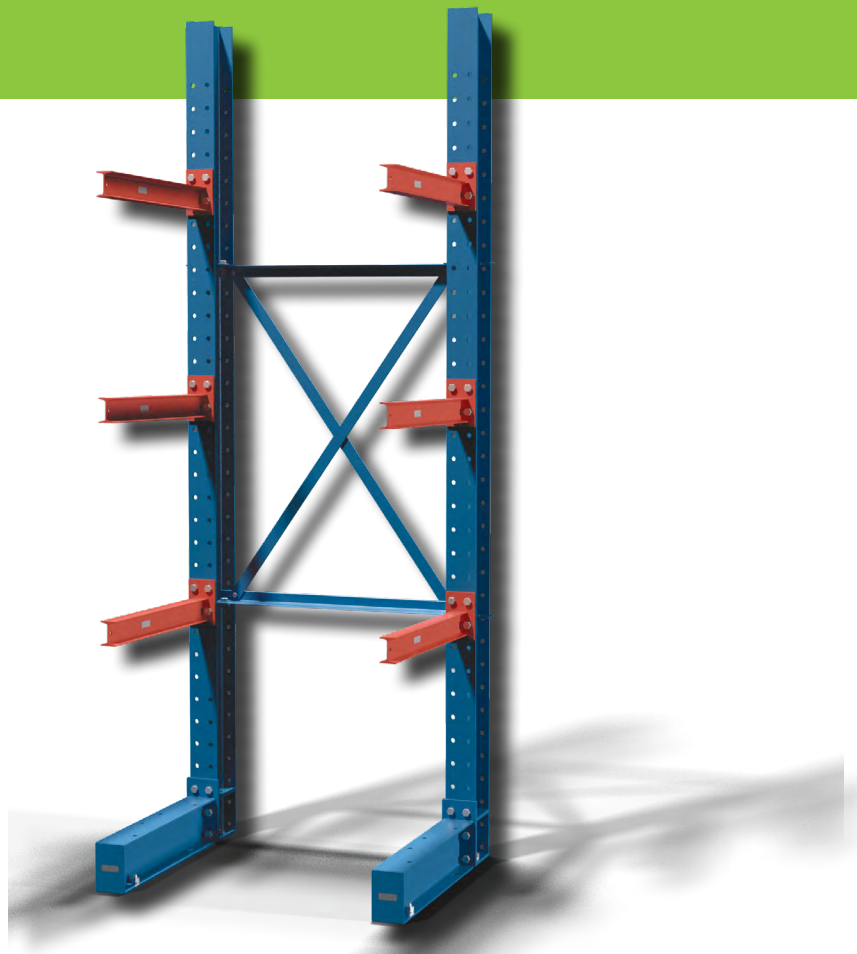




CANTILEVER RACK SYSTEM

INFORMATIONAL BROCHURE



The background of the page is a grayscale photograph of a large industrial warehouse. The warehouse is filled with rows of cantilever racks, which are used for storing long materials like lumber or metal beams. The racks are arranged in long aisles, and the ceiling is high with visible lighting fixtures. The overall scene conveys a sense of a well-organized and spacious storage facility.

Table of Contents

Cantilever Rack System	3
Maximize Capacity and Density with Cantilever Rack	4
I-Beam Cantilever Racks	5
Maximize Storage and Improve Accessibility	5
Options and Accessories for Cantilever Racks	5
How to Design Your Cantilever Rack Systems	6

NOT ALL RACKS ARE THE SAME - STEEL KING IS BUILT TO LAST!



CANTILEVER RACK SYSTEM



Steel King leads the way in rack technology with innovation and experience with more than 40 years in the materials handling industry.

Our superior designs give you a rugged, long lasting, truly economical rack. Steel King offers innovative, expert solutions to complex storage problems.



Arms are available in a variety of sizes and styles to accommodate your rack load.

CANTILEVER RACK SYSTEM



Maximize Capacity and Density with Cantilever Rack

Efficient, organized storage of long or oddly-sized materials. Choose any style for simple installation, low maintenance, and rugged operation.

Easier to Use

With no front column in the way, cantilever racks are faster to load and unload, lowering handling time and costs.

More Compact

The lack of a front column saves horizontal space normally lost to rack structure and allows for easy access.

More Selective

Any load or storage slot is immediately accessible.

More Economical

Both reduced handling times and increased space utilization make cantilever racks more cost-efficient. Additionally, cantilever racks become more economical to incorporate than pallet rack when load length increases.

More Adaptable

Cantilever racks can store nearly any type of load. They are especially useful for storing long, bulky, or oddly-shaped items.

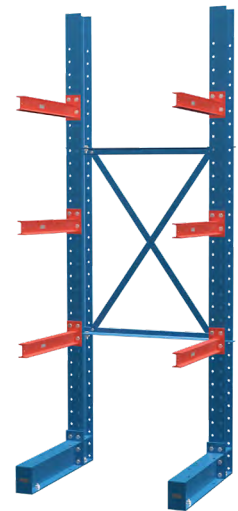
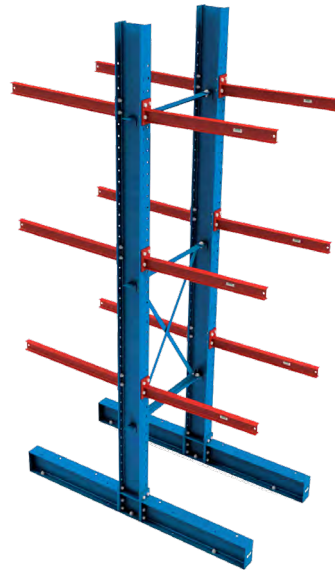


I-Beam Cantilever Racks

Maximize storage and improve accessibility

Cantilever racks in the I-Beam configuration allow accessibility from both sides, allowing for faster load and unload times. This design saves horizontal space normally lost to rack structure and reduces fork truck damage.

- › Arm lengths up to 8'
- › Freestanding heights up to 30'
- › Arms adjust vertically in 4" increments
- › Constructed of structural steel with a 50,000 psi minimum yield
- › Heavy arm connector plate
- › Bolted base-to-column connection



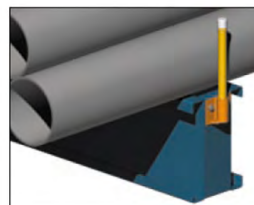
I-Beam Cantilever Racks can be built in either single- or double-sided configurations.

Options and accessories for cantilever racks

Saddles:
Attaches to arms. Used for decking supports.



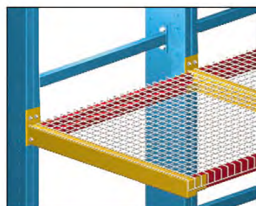
Removable Pipe End Stops:
Attaches to arms or base. Includes pipe, bracket and plastic cap.



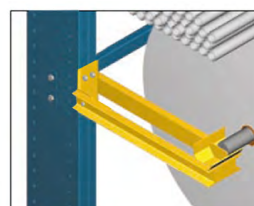
Welded Lips:
Welds to arms or base. Many heights available.



Wire Deck:
Attaches to arms for storage of odd lengths of bar, rounds, etc..



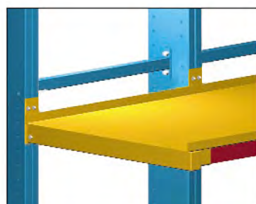
Core/Axle Saddles:
Attaches to arms for accepting core/axle of rolls.



Bolted End Lips:
Arms punched to accept optional removable end lips.



Drop-On Pans:
Attaches to arms for storage of odd lengths of bar, rounds, etc.



How to Design Your Cantilever Rack Systems

1. Determine the number and spacing of support arms

- 1a. Use enough arms under a load to prevent deflection of the load. Deflection causes undesirable side pressure on the arms.

Using wood blocks on the floor under the load, test your load for deflection on a two-support system.

- 1b. If you do not detect any deflection, you may use two support arms. The arm capacity required will be half the load weight, and the upright centerline will be 1/2 of the load length.
- 1c. If you notice deflection with two supports, try three supports. If this system works, arm capacity will be 1/3 of the load weight, and the upright centerline will be 1/3 of load length.

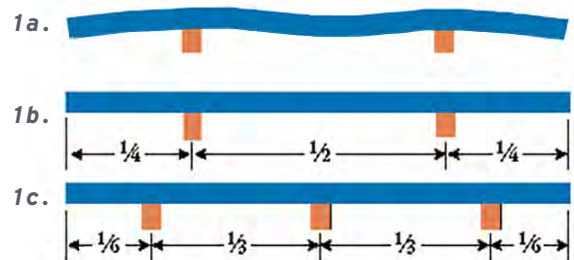
If three supports are still not enough, add supports as necessary until deflection is eliminated.

Note: Product should overhang the end of the rack by 1/2 of the upright centerline distance

Loading without overhang is incorrect.

2. Determine arm length. Arm length is generally equal to load depth.

Arm length shown in 2a is correct; 2b can also be used if rack is designed as such.



2a.



(A) Total Load: 1000 pounds

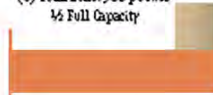


(B) Total Load: 1000 pounds



Arm capacity is based on uniformly distributed loads as shown in (A) and (B)

(C) Total Load: 500 pounds
1/2 Full Capacity



Loading pattern shown in (C) reduces capacity of arm by 50%

2b.



3. Determine upright height.

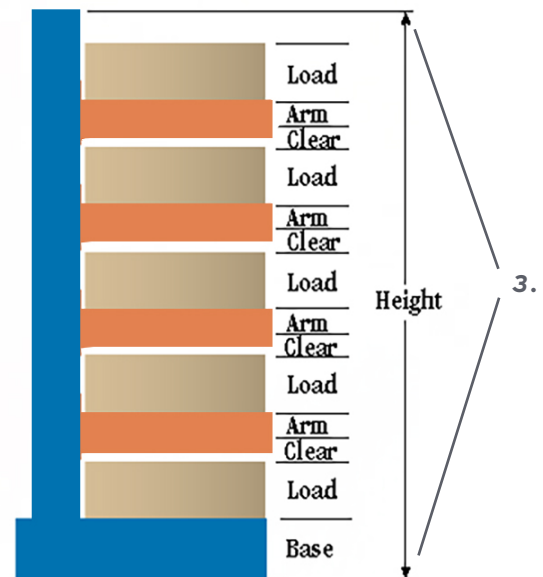
Start with based height:

- + Number of storage levels x load height
- + Handling clearance (4" to 6") x number of levels
- + Number of arm levels x arm thickness = upright height

Note: Contact Steel King for current arm and base dimensions.

Note: Check limitations at your plant such as ceiling clearance or fork lift height.

Note: Top arm level must be below the top of the column



4. Determine capacities required.

Arms: Load weight ÷ number of arms per level = arm capacity. (Assuming each arm supports an equal amount of the bold.)

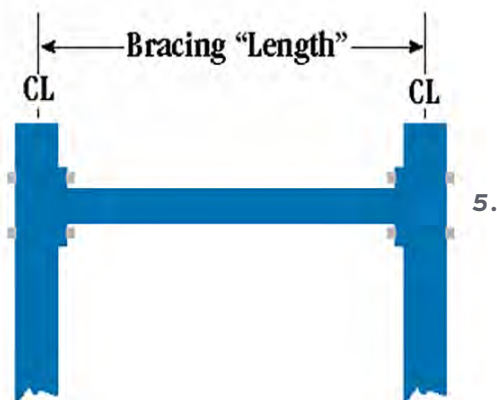
Uprights: Number of arms per side x load per arm.

Note: Load on base is not included in capacity.

5. "Bracing lengths" refer to the horizontal centerline distance from column to column, as in the diagram.

Based on the number of arms calculated in Step 1, determine the bracing length required.

Bracing can be sold in individual pieces (or, through our Quick Ship program, sold in bracing kits).





Rack and Systems

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- > Cantilever Racks
- > Drive-In / Drive-Through Racks
- > Flow Rack / Pushback Racks
- > Pick Module Racks
- > Specialty Racks
- > Portable Racks
- > Custom Shipping Racks
- > Support Structures / Work Platforms

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- > Safety Gates
- > Pallet Load Stops and Supports
- > Lift-Out Rails
- > Rub Rails

If you have any further questions, contact your local Steel King Representative for customer assistance or contact Steel King Industries directly at (800) 826-0203.

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and why our products
are BUILT TO LAST.



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Steel King manufactures a full line of industrial storage containers for heavy-duty stackable storage, scrap handling, line assembly dispensary, parts distribution, and other uses. We offer essential, industry-standard designs as well as fully-custom containers suited to your storage requirements.

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