



NORTH AMERICAN STEEL

INNOVATIVE STORAGE SOLUTIONS



OUR
STRENGTH
IS OUR PEOPLE



STRUCTURAL CANTILEVER



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North American Steel/Storage manufactures Structural Cantilever systems to accommodate multi-level, high density loads of different types and sizes. This system is not recommended for standard pallet racking bays.

Cantilever systems are often utilized when storing lumber, siding, pipes, conduit, or rolled floor coverings. Storage of odd sized or bulky items such as furniture and household appliances which are not easily palletized are excellent applications of this system. Operators looking to maximize horizontal accessibility for products of variable lengths will benefit from Structural Cantilever's lack of vertical obstructions.

Structural Cantilever is ideally suited for outdoor applications and can be designed to provide side, rear, and overhead shelter. Our Structural Cantilever is finished in durable powder coated coverings available in standard colours and UV stable options.



Outdoor

- › Structural Cantilever installed outside will not collect water and degrade over time
- › Requires a concrete pad or other approved mounting system
- › Suited for retailing of lumber products, landscaping, and pipe of all material types
- › Roof and side cladding is available
- › Standard designs available up to 24 ft. Taller designs upon request
- › Can be designed to withstand outdoor weather conditions
As an addition to existing storage buildings

Indoor

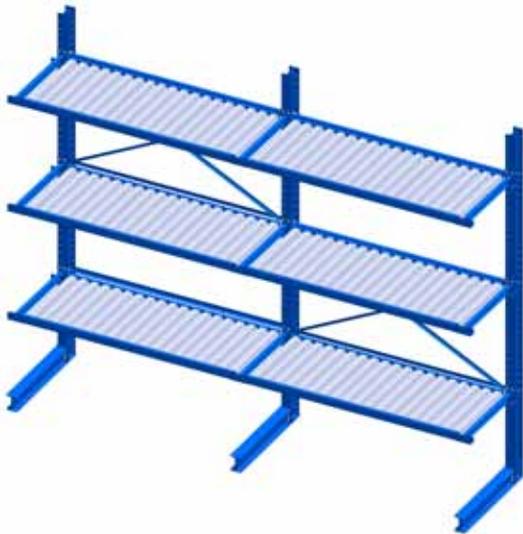
- › Ideal for storage of long items that cannot be stored outdoors
- › Suited for retailing of appliances, rolled flooring, assembled and bulky furniture
- › Arms available from 18" to 72" in length to provide storage flexibility



PRODUCTS

Cantilever Bolted Rack

- › Ideal for storage of lumber, steel channels, pipes, tubes, plywood, drywall, steel plates, and items of long length or irregular shape
- › Lift truck forks have easy entry for un-palletized loads
- › Base legs provide stability and keep the products off the floor
- › Variety of arm styles and capacities available
- › Arms and bases are designed to bolt on either or both sides of column for conversion from single to double-sided units
- › Can be galvanized for external use

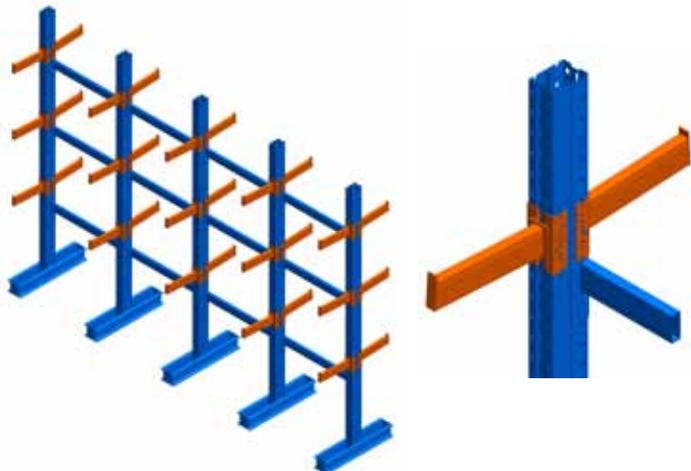


Cantilever Deck Rack

- › Ideal for furniture, long boxes or long containers
- › Strong, durable, and fully adjustable system
- › Durable construction for low maintenance and longer service life
- › Minimizes storage space and construction costs
- › Utilizes higher lift height capacity for the latest handling equipment
- › Allows for vertical shelf height adjustment without interruption of the horizontal plane
- › Can incorporate optional guide rails for handling equipment

Cantilever Bar Rack

- › Ideal for pipes, tubes or bars
- › Durable Powder Coated finish
- › Capacity up to 500 lbs per arm
- › Reel holding option up to 2,500 lbs per reel
- › Arm length up to 48"
- › Arms attached with a double bracket connection
- › Arms have welded end stop
- › Available in single and double sided configurations



Double-sided Cantilever

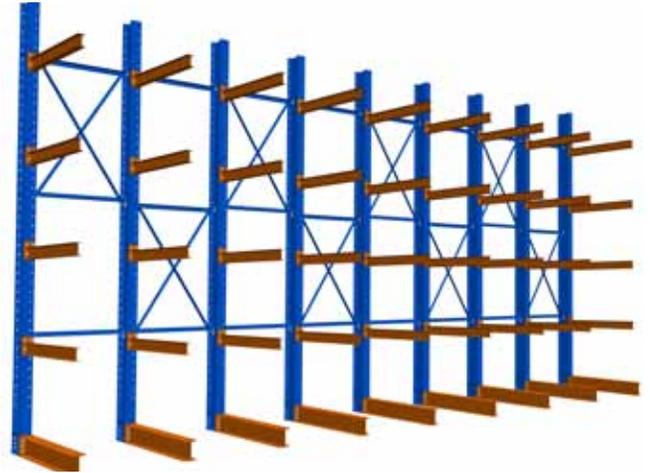
- › Allows loading on both sides of column
- › Back to back loads need not be identical weight or dimension

*All columns are punched on 4" centers for both single and double sided applications



Single-sided Cantilever

- › Arms installed on one side of the column only
- › Typically used along walls or adjacent to equipment/pallet racking system



Wide Aisle

- › Wide Aisle / Conventional is typically 192" and above and uses conventional lift trucks



Narrow Aisle

- › Narrow Aisle is typically 84" or less and requires specialized narrow aisle equipment

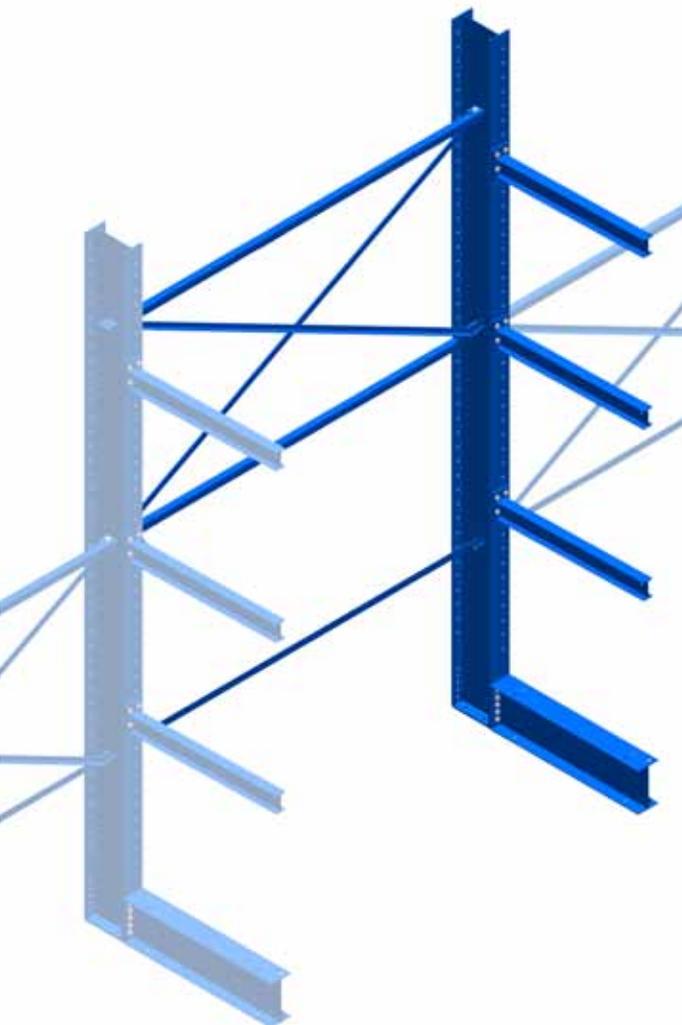


COMPONENTS

Column

NAS Structural Cantilever features columns manufactured using Wide Flange hot rolled sections punched on 4" centers starting at approximately 20" above the slab surface. All columns are punched for single sided or double sided applications and are available in the following standard sizes:

| COLUMN | HEIGHT | CAP* | ANCHORING |
|---------------------------|----------------------|----------------|---|
| 8" | 8'(96")- 18'(216") | 10,600- 18,600 | (x2) 7/8" \emptyset hole for 3/4" \emptyset anchors |
| 10" | 12'(144")- 20'(240") | 16,100- 28,400 | (x2) 7/8" \emptyset hole for 3/4" \emptyset anchors |
| 12" | 12'(144")- 24'(288") | 22,000- 37,500 | (x4) 7/8" \emptyset hole for 3/4" \emptyset anchors |
| *Capacity in lbs Per Side | | | |



Base

Bases and arms are typically specified with equal lengths, with the exception of special cases where a base may be longer in order to utilize a rod end stop.

Bases use the same Wide Flange hot rolled section as the column and are punched to accept 3/4" diameter wedge anchors.

NAS recommends the use of a suitable concrete foundation as a base for Cantilever Racking (typically 6" minimum). Concrete piers or footings may also be acceptable but may settle over time. Screw piles are also acceptable if specified for the application by the manufacturer.

| BASE SIZE | AVAILABLE LENGTHS | ATTACHMENT* | ANCHORING |
|--|-------------------|---|---|
| 8" | 2'(24")- 5'(60") | (x6) 3/4" \emptyset Grade 5 Nut & Bolt | (x4) 7/8" \emptyset hole for 3/4" \emptyset anchors |
| 10" | 2'(24")- 5'(60") | (x8) 3/4" \emptyset Grade 5 Nut & Bolt | (x4) 7/8" \emptyset hole for 3/4" \emptyset anchors |
| 12" | 2'(24")- 5'(60") | (x10) 3/4" \emptyset Grade 5 Nut & Bolt | (x4) 7/8" \emptyset hole for 3/4" \emptyset anchors |
| *Attachment to Column (x2) for Double Sided Applications | | | |

All Bases must be anchored to limit the lateral movement of the Cantilever rack.

Bracing

All Structural Cantilever is supplied with bolted bracing panels which alternate horizontal and vertical X panel bracing to provide the required stability.

NAS only utilizes hot rolled structural angle for bracing and panel assemblies, offered in a variety of widths to accommodate the required spans between load supports.

Braces are bolted to tabs welded to the column, reducing potential for error during assembly. Vertical braces are required in each end bay of any row and in alternate interior bays. Bracing sizes shown are measured column centre to centre.

| COMPONENT | LENGTHS | ATTACHMENT |
|----------------------|---------|--|
| Horizontal Brace | 24"-96" | (x2) 3/4" \emptyset Grade 5 Nut & Bolt |
| Vertical Panel Brace | 24"-96" | (x4) 3/4" \emptyset Grade 5 Nut & Bolt |



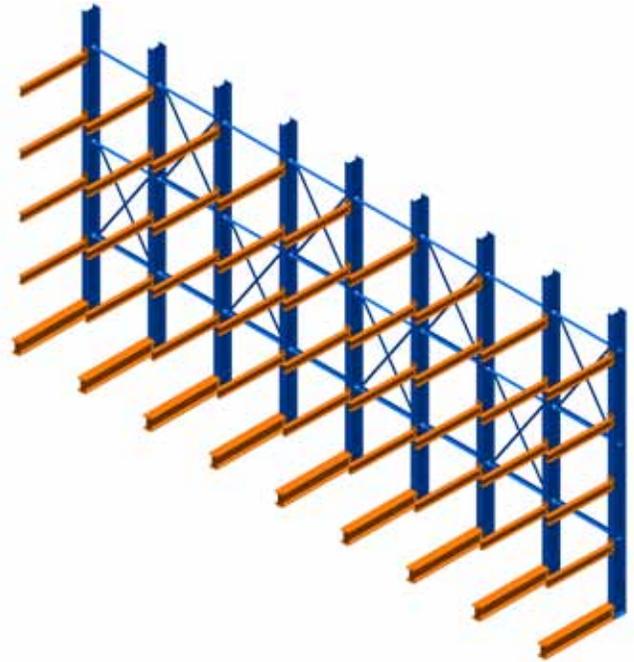
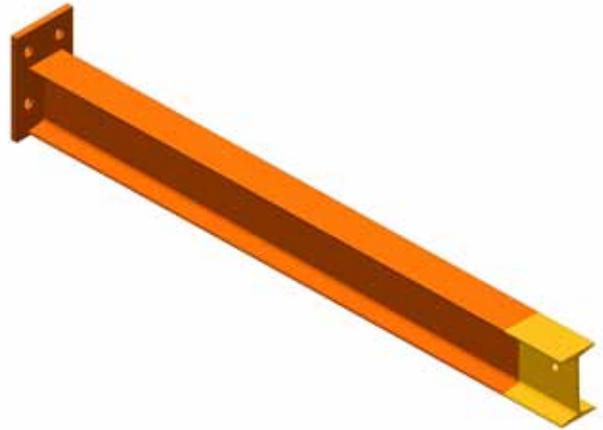
Arms

NAS Structural Cantilever Arms utilize hot rolled "S" sections in 3", 4", and 5" sizes over a range of lengths. Each system is designed based on the specific applications, product size, and required capacity.

Arms are adjustable on 4" centers, are attached to the column with (x4) 3/4" Grade 5 hardware and are welded with an incline of 1/4" per foot of arm length. For example: 4' arm is 1" higher at the front tip than at column connection.

Arms are available with a variety of accessories and can be designed to accept solid and permeable decking based on the specific requirements of the application.

| ARM | AVAILABLE LENGTH | AVAILABLE CAP |
|--------------|----------------------------|---------------|
| 3" Beam Arms | 1 1/2' (18")- 4 1/2' (52") | 4,000 - 1,200 |
| 4" Beam Arms | 2'(24")- 5'(60") | 5,500 - 2,100 |
| 5" Beam Arms | 2'(24")- 5'(60") | 8,900 - 3,500 |



Arm Accessories

Arms are supplied with painted yellow tips. Load arms are available with a number of finishing options based on the specific application including 1"Ø rod and chain assemblies. Arm End stops and Base End Stops are available in a range of heights, custom arm angles, and decking attachment options.



Bolted Rod and Socket

A Bolted Rod and Socket assembly creates a removable stop at the end of the arm or base. The rod is removed for loading bundled material into the system and then the rod is placed into a socket to create an end stop. A chain is welded between the rod and socket to secure the rod to the arm. Rods can be easily replaced if damaged.

Other Catalogues



ROLLFORMED RACK



STRUCTURAL RACK



MEZZANINE/CATWALK

Proudly Canadian

Advanced Production Methods

**HIGH SPEED
ROLLFORMING LINES**



**ROBOTIC
WELDING**



POWDER COATED FINISH

All NAS products use environmentally friendly powder coatings with a durable scratch resistant finish.

Installations & Services

**OUR EXPERIENCED ENGINEERING TEAMS
STAND READY**

to assist you in planning and designing your Storage Systems.

PROFESSIONAL INSTALLATION CREWS can handle all of your racking and shelving installations, repairs and maintenance. Union and non-union crews available.

OPERATES MULTIPLE MANUFACTURING PLANTS which are strategically located across the country to offer improved service and reduced freight costs.

Certifications



Warranty

All materials are guaranteed to be free from defects in workmanship and material.

Extended Warranties vary depending on product.

Installation Warranty applies to all racking installed by our certified installation crew.

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Innovative Storage Concepts