



NORTH AMERICAN STEEL

INNOVATIVE STORAGE SOLUTIONS



OUR
STRENGTH
IS OUR PEOPLE



NORTH AMERICAN RACK

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North American Rollformed Racking is compatible with Redirack and all major Canadian Rack Systems. NAS Rollformed Rack Installation capacities range from 25,000 lbs. to 100,000 lbs. per bay with a safety factor of 2.0.

At North American Steel we have the capability to produce 46' h endframes without splicing.

Features & Benefits:

- › Our Endframe Capacity can be greatly enhanced by Double Posting. Life cycle is extended with Bullnose protection or Heavy Duty Braces to deflect accidental impact from lift trucks.
- › NAS manufactures a wide choice of step beams, box beams and structural beams which accommodate all our endframes to suit your company's specific applications.
- › Safety clips may be replaced with a choice of Spring clips, Tek Screws or Plunger Pins.
- › Paint Finish: All rack is powder coated over properly cleaned and phosphate etched surface and oven baked at proper temperature/time ratio to produce a durable scratch resistant coating. Food grade approved or acid resistant finishes are available.



ENDFRAMES



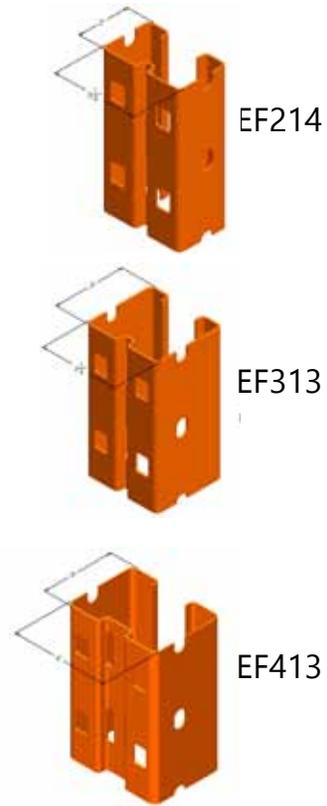
Rear return bends are a unique feature of North American Racking. The 10 vertical bends per column add strength, structural rigidity, and impact resistance.

The tubular bracing used in our endframes makes them stronger than regular standard bracing channels. All horizontal bracing is welded at both ends against the front and rear endframe columns.

The 6-point wrap around beam connector supports each beam at 12 points, squaring the beam to the frame automatically.

PART #	SIZE	GAUGE	CAP*
EF214	3 1/4"x 2"	14	22,570
EF213	3 1/4"x 2"	13	26,270
EF313	3 1/4"x 3"	13	33,230
EF413	4"x 3"	13	42,290

*Capacity in lbs at 48" Beam Centre and 42" in Between Bracing



Endframe Options

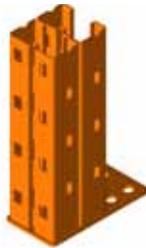
Heavy Duty Lower Brace

Transfers frontal impact energy to the back post of the Endframe. Prevents column from rotating and acts as a Rub Rail for pallet entry.



Double Post

Increase the capacity and transfers axial load to the second post if front post becomes damaged.



Structural Column C-Channels

Inserted inside the column (usually to the first beam level) and welded in place, absorbing lift truck impact. This significant increase in column strength prevents column from denting or bending.



Cant-Leg

Advanced Leg Options

Cant-Leg Frame

Angles the front aisle post away from the load aisle to prevent accidental damage from pallet entry on the lower level. Severe Cant-Leg frames are often used in Double Deep Selective applications.

Recessed Leg Frame

The front aisle post is recessed to allow greater aisle clearance for lift truck turning and pallet entry. Recessed Leg heights can be shorter than the Cant-Leg option, making this ideal for installing low beams for future Carton Flow or pick level locations.

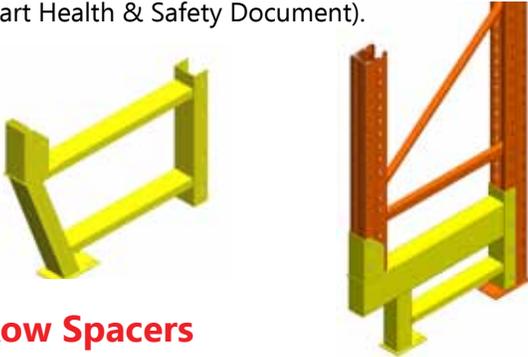


Recessed Leg

ENDFRAME PROTECTION

Removable Base

Removable Bases are bolted into frame legs. They are designed to be replaceable in the event of impact damage, saving time and cost of replacing the entire frame. Unlike the 3rd party repair kits, a frame supplied with a removable base can be replaced by North American Steel without requiring re-certification (Pre-Start Health & Safety Document).



Row Spacers

Row Spacers are used for back-to-back rows to tie the endframes together for stability and consistent spacing. Row spacers can also support in-rack sprinkler systems.

Recommended: 2 pair for frames up to 12 ft, 3 pair for frames up to 20 ft, 4 pair for frames up to 26 ft, 5 pair for frames up to 32 ft. Over 32 ft call the manufacturer.



Cross Aisle Ties

Cross Aisle Ties are attached on top of two endframes that are adjacent to each other to stabilize single rows of racking. These are required if the height-to-depth ratio of a single row exceeds (6:1). They can also support electrical equipment if required (ie. extra aisle lighting).



Post Protectors

Post Protectors provide added protection in high traffic areas. The angle helps to deflect rather than absorb direct frontal impact and reduces the possibility of rack frame damage.

Welded-On Factory welded to the front of the upright, it is the most economical option for protection. Available on new installations only.



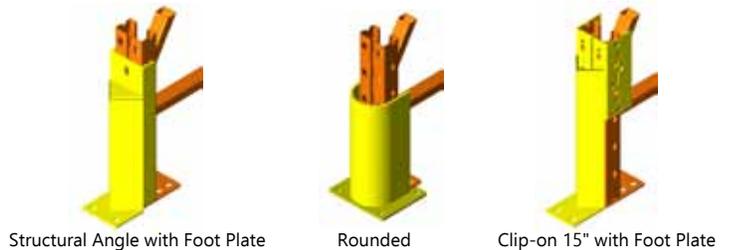
Clip-On

Clip-on to the front face of rack frame. The longer (15") style is designed for use with base plate beams.



Floor Mounted

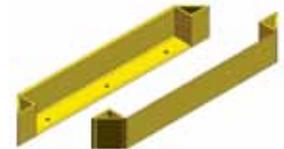
These are the most common type of stand-alone protectors. They are anchored separate from the column.



End of Aisle Guards

Tapered Floor Mount

Provide protection for end of row frames against lift truck damage. Adds a neat finished appearance.



Raised Aisle Guards

This raised aisle guard is preferred where cleaning under the guard is a sanitary necessity.



Frame Mounted

Protect frames and braces from fork lift truck impact above floor level.

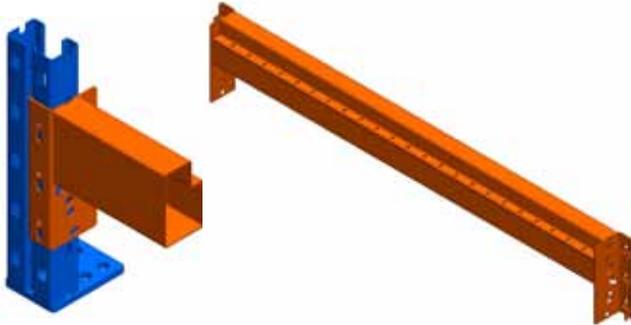


BEAMS

Step Beams 2 1/2" - 6 1/2"

A one-piece multi-purpose beam with a rolled in-step, pierced to accommodate safety bars, shelf supports and other unique accessories. Full 1-3/4" top face for superior pallet support.

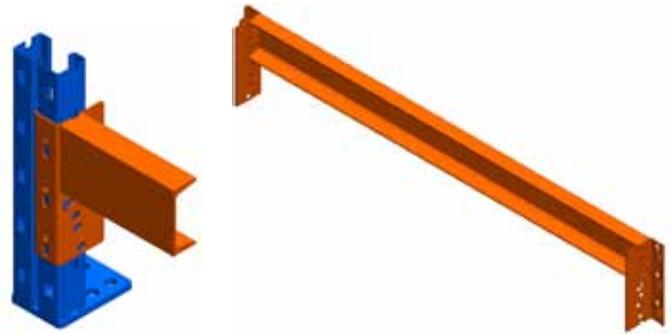
Our one-piece rollformed tube provides strength and safety. The seam of our beam is located at the rear under the step, preventing accidental fork lift or pallet "hooking". The 3" deep bracket allows welding of beams in front and rear.



C-Channel Beams 3" - 8"

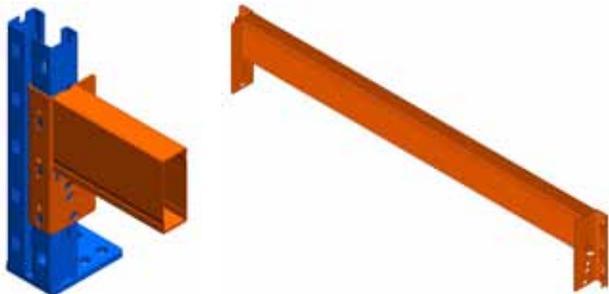
C-Channel beams are recommended for heavy traffic and high abuse areas (ie. front beams on Push Back and Pallet Flow Rack).

The structural shape places the most amount of steel on the face and face corners to prevent damage at impact. To obtain the full rated capacity, C-channels require tie bars to prevent rotation.



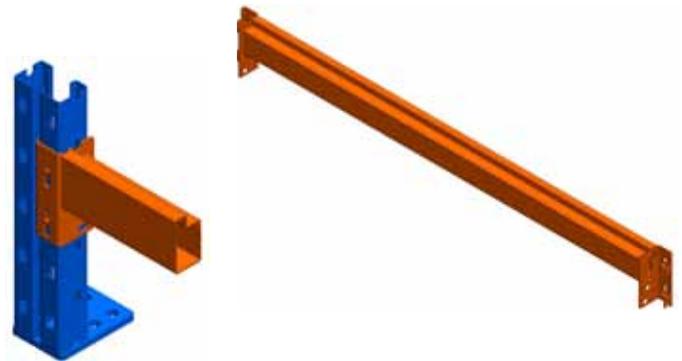
Box Beams 2 1/2" - 7"

Ideal for heavy pallet loading; tunnel bays with 3 pallet loading. Box Beams offer the highest capacity/dollar of all beam types. The 2 piece interlock design is ideal for point loads and engages Tek Screw threads better than single layer beam designs. Our Box Beam seam is at the bottom and folds upwards so it cannot be hooked by lift truck or pallets.



Shelf Beams 2 1/4" - 3 1/4"

Light duty shelf beams are available for retail hand loaded applications. The one-piece rolled in-step beam has a 3/4" step. Ideal for particle board or wire mesh shelves.



Safety Racking Clips & Tek Screws

Are a required safety element in the rack installation. They prevent accidental dislodging of beams on impact from lift trucks or pallets.

Safety Pins (included standard)
Installed either in the front or side of the beam bracket (galvanized).

Safety Tek Screws (optional)

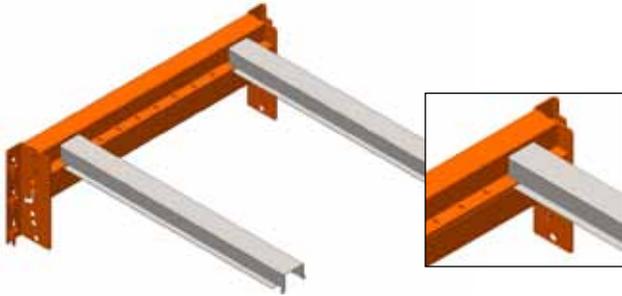
The Safety Tek Screw is a Grade 5.2 hex flange screw, case hardened and coated with a zinc chromate finish. When properly installed, this hardware provides significantly more resistance to accidental beam disengagement versus a standard safety pin.



Spring Clips (optional)
Installed in the front of the beam bracket (galvanized).

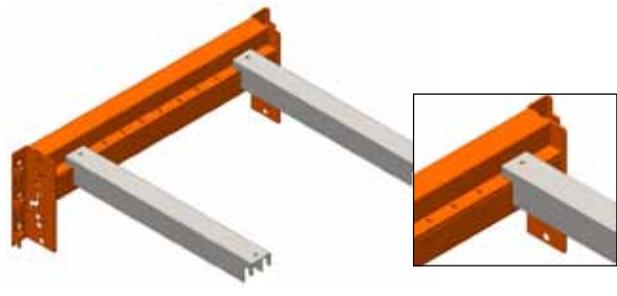
Plunger Pins (optional)
Our patented plunger pin snaps into position automatically and replaces standard safety clips. Recommended for retail applications.

BEAM ACCESSORIES



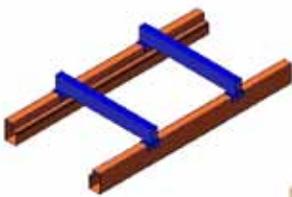
Safety Bars Medium or Heavy Duty

Sit flush in pre-slotted step beams to stop improperly placed pallets from falling between beams. Safety Bars prevent spreading on extra wide racks under heavy loads. Two safety bars per pallet position are mandatory on installations over 16 ft. high.



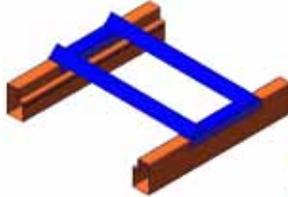
Combination Shelf Supports & Safety Bars For Step Beams

This shelf support has all the same features as the medium duty safety bars. It sits 7/8" below the top of the beam to provide a flush surface, when plywood or other shelving material is used. Minimum 4 per 96" shelf.



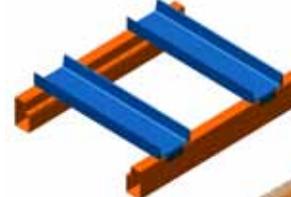
Fork Entry Bars

Support non-palletized loads, such as wallboard, plywood and metal sheets.



Drum Cradles

Designed to adapt racking to hold cylindrical objects. The unit is completely welded and fits securely on NAS Step Beams.



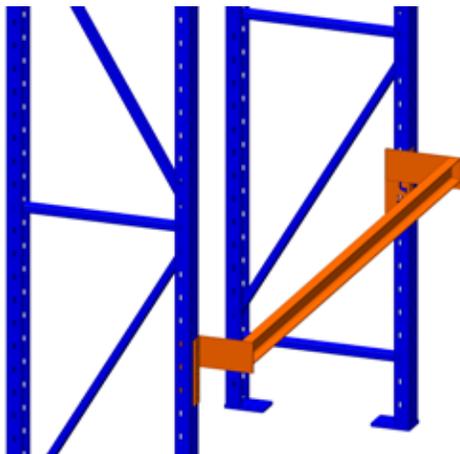
Skid Channel

Adapt rack to the storage of semi-live and stationary skids.



Back Stop Beam

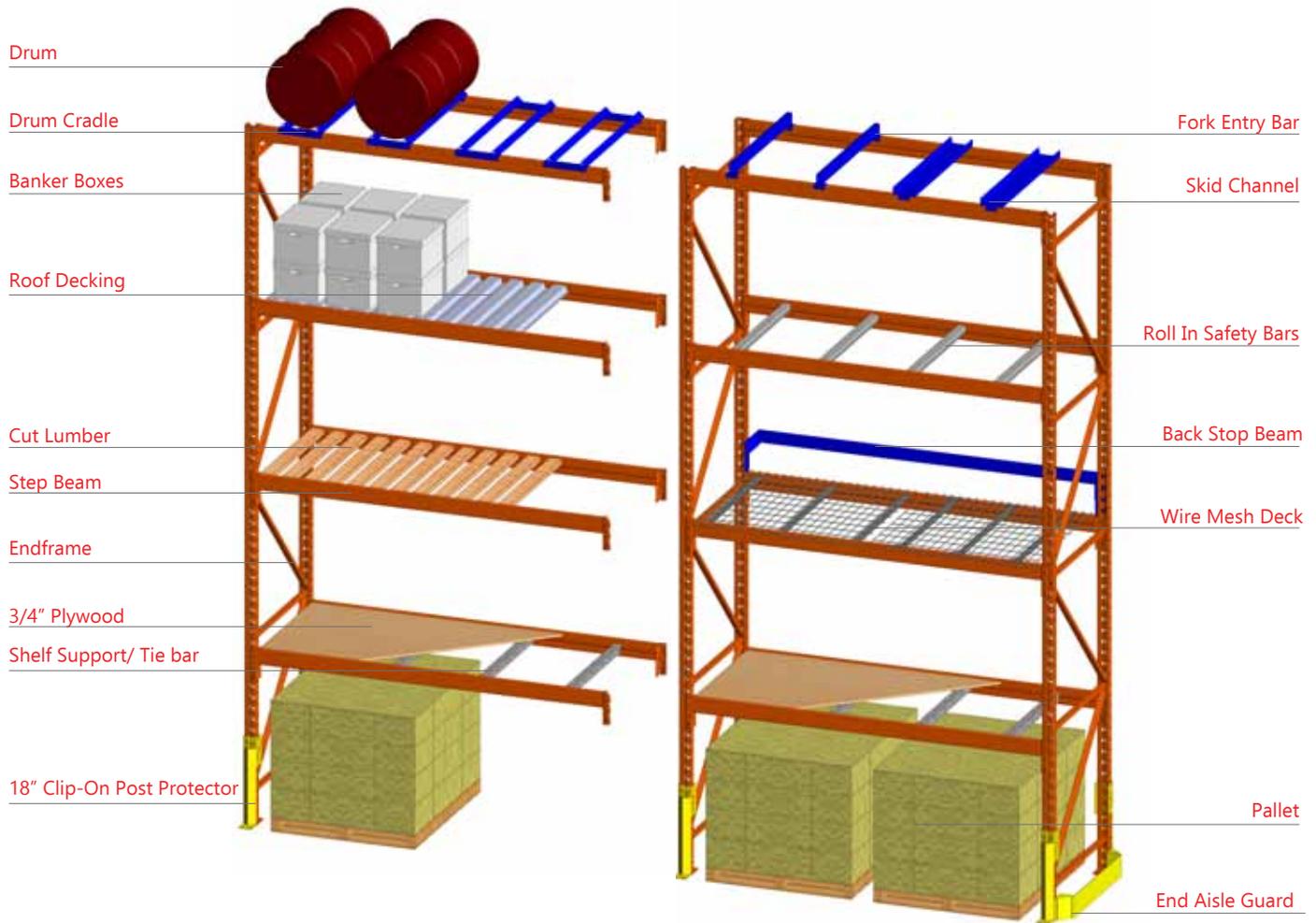
Back Stop Beams are offset loadbeams which create a barrier at the rear of the pallet bay. Typically used to create flue space between back-to-back rows, prevent pallet contact with building walls, or to mount safety netting on to pallet rack adjacent to pedestrian walkways.



Wire Mesh Decks

Universal Waterfall Wire Mesh Decks are designed to fit on all Step Beams, Box Beams and structural steel beams. The U-Channel support is welded to the wire mesh for added strength and sits on top of the beam. Channels are available in standard and sanitary configurations.





Rack Shelving Systems for Step Beams

Shelf Support

Choose from steel shelf supports or 1"x 6" lumber to support wood shelves. A variety of materials, such as plywood, particle board or finished board can be used for shelving.



Drop-In Panels

Galvanized steel panels provide a smooth surface. Available in 6" or 9" standard widths.



Cut Lumber

Inexpensive shelving for NAS Step Beams. Standard 2"x 4", 2"x 6" and 2"x 8" lumber fits flush into step beam, providing an inexpensive shelving option.



Other Catalogues

 **Proudly Canadian**



SELECTIVE RACK



DRIVE-IN RACK



PUSHBACK RACK

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

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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With 60 Years

Manufacturing Experience

NORTH AMERICAN STEEL

is the leading name for

Innovative Storage Concepts