

**NORTH AMERICAN STEEL**

**INNOVATIVE STORAGE  
SOLUTIONS**



OUR  
**STRENGTH**  
IS OUR PEOPLE



**AMERICAN TEARDROP RACK**



# AMERICAN TEARDROP

American Teardrop racking (with its 2" adjustable and tapered locking connection) has been an industry standard for decades. American Teardrop rack is compatible with new and old design of "Mecalux/Interlake" and other manufacturers of Teardrop pallet racking.

Choices available are:

1-5/8" and 3" deep posts for light and heavy duty applications with center seam for added impact resistance  
14, 13, or 11 gauge posts for different load applications

## Features & Benefits:

- › The tapered key-lock rivet connectors allow a longer engagement than a standard round rivet. The compression connectors square the beam to the column vertically and horizontally. The tapered rivet adds an additional feature by ensuring the beams do not dislodge easily.
- › The teardrop endframe capacities range from 11,000 to 28,000 lbs. Increased endframe capacities of up to 50,000 lbs. can be achieved with double posting.
- › Optional removable (replaceable) bases for endframes, like Recessed Legs or Cant-Legs are available, with Bullnose and Heavy Duty Braces for impact deflection from lift trucks.
- › A wide variety of suitable footplates are available for seismic active zones.
- › Our one-piece multi-purpose beam with a rolled instep, is uniquely pierced to accommodate safety bars, shelf supports and other accessories.
- › Beams have a full 1-3/4" top face for superior pallet support.
- › Our beam brackets allow for quick and secure beam interchangeability.
- › 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

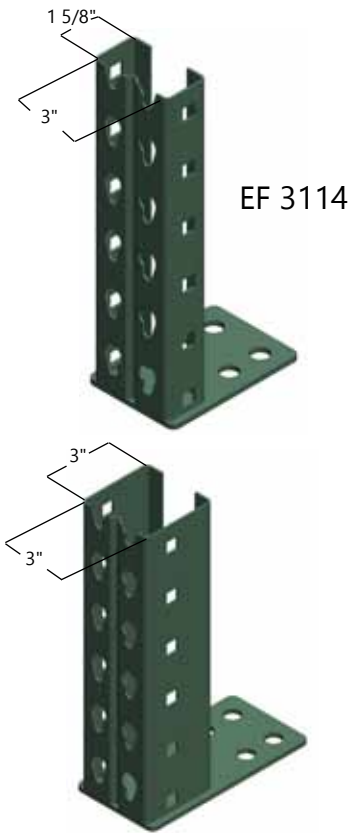


American Teardrop Endframes are available in four different ratings as per capacity chart below.

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 column. Horizontal brace centres can be adjusted for maximum frame capacity.

PART #	SIZE	GAUGE	CAP*
EF 3114	3"x 1 5/8"	14	11,320
EF 3314	3"x 3"	14	18,530
EF 3313	3"x 3"	13	21,940
EF 3311	3"x 3"	11	28,510

\*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.



## 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.



Cant-Leg

### 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 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 end frames together for stability and consistent spacing. Row spacers can also support in-rack sprinkler systems.

Recommended: 2 for frames up to 12 ft, 3 for frames up to 20 ft, 4 for frames up to 26 ft, 5 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.



Bull-Nose with Side Plates



Bull-Nose with Cap



Structural Angle

### Clip-On

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



Clip-on 24"



C-Channel Bolted



Clip-on 6"

### Floor Mounted

These are the most common type of stand-alone protectors and are anchored directly to the floor.



Structural Angle with Foot Plate



Rounded



Clip-on 15" with Footplate

## 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 when cleaning under the guard is required.



### Frame Mounted

Protects frames and braces from lift truck impact above floor level.

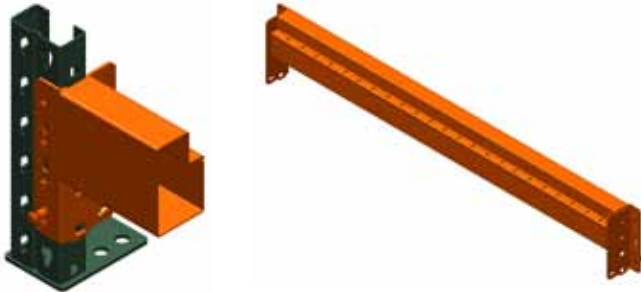


# BEAMS

## 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.

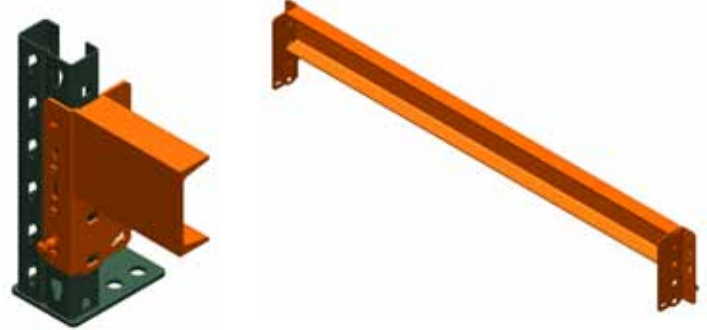
Our one-piece rollformed tube provides strength and safety. The seam of our beam is located at the rear under the step, preventing accidental lift or pallet "hooking". The 3" deep bracket allows welding of beams in front and rear.



## C-Channel Beams 3" - 8"

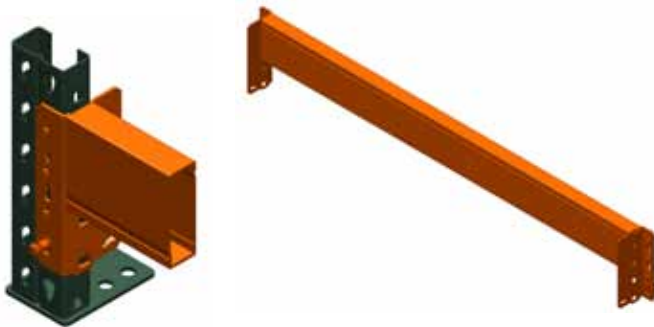
C-Channel beams are recommended for heavy traffic and high abuse areas (ie. front beams on Push Back and Pallet Flow Rack).

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.



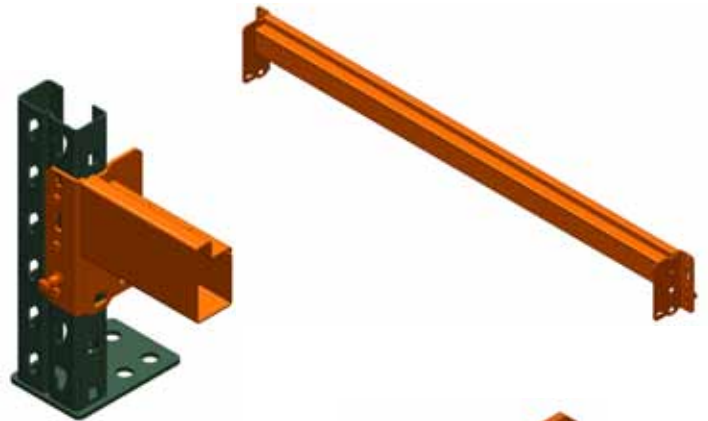
## Box Beams 2 1/2"- 7"

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 front Box Beam seam is at the bottom and folds upward so it cannot be hooked by lift truck tips 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.



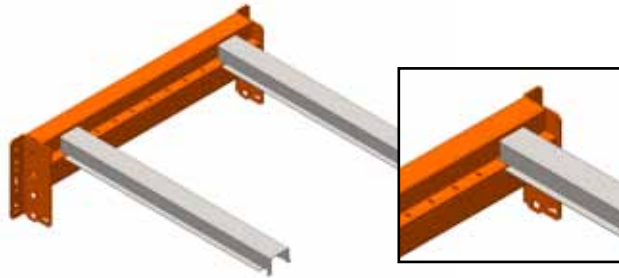
## Spring Clips

Safety clips are a required safety element in all racking installations preventing accidental dislodging of beams on impact from lift truck or pallets.

Our beam brackets include a spring clip locking mechanism as an integral element. It automatically provides a solid connection between beam and endframe.

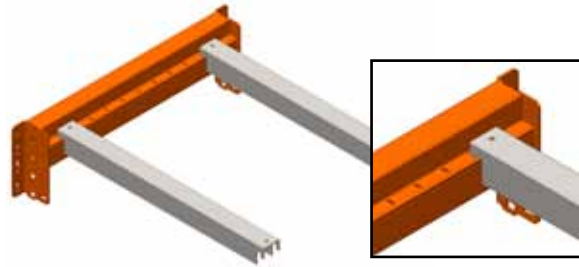


# BEAM ACCESSORIES



## 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 recommended on installations over 16 ft. high.



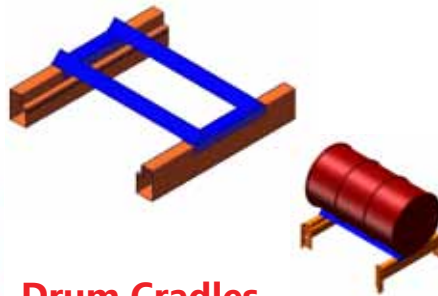
## Combination Shelf Supports & Safety Bars For Step Beams

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



## Fork Entry Bars

Supports 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 store semi-live and stationary skids.

## Back Stop Beam

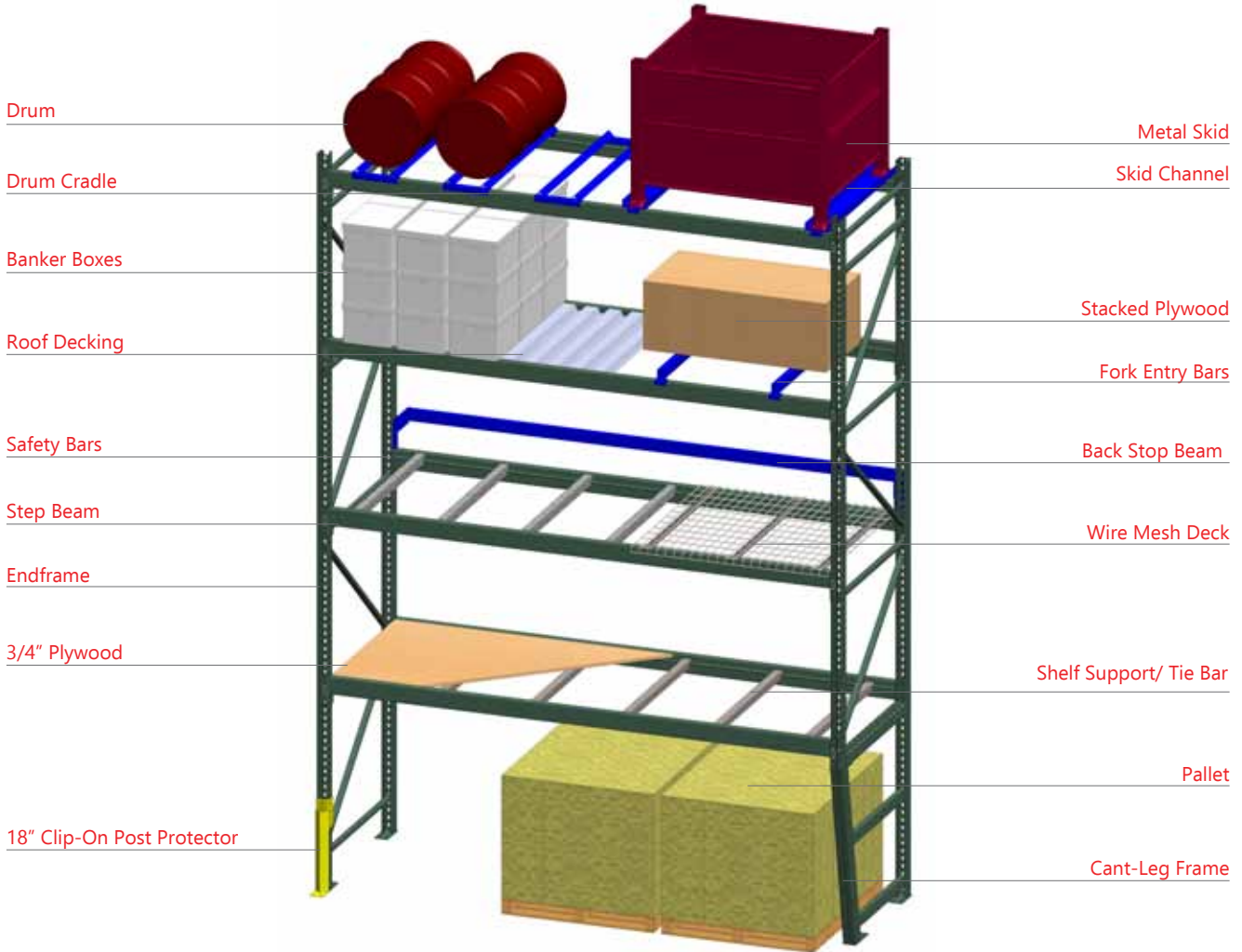
Back Stop Beams are offset loadbeams which create a barrier at the rear of the pallet bay. Typically used to create flue space between back-to-back rows, prevent pallet contact with building walls, or to mount safety netting on to pallet rack adjacent to pedestrian walkways.



## 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 support 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 beams, providing an inexpensive shelving option.





## Other Catalogues



**SELECTIVE RACK**



**DRIVE-IN RACK**



**PUSHBACK RACK**

## North American Manufactured

### 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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