



ENGINEERED
RACK REPAIR
UNCOMPROMISING
RACK GUARDS



CONTACT US
MACRAK.COM
815-723-7400

#1 IN USA
LIFETIME WARRANTY
TURNKEY SERVICE

MAC RAK RACK COMPETITIVE EDGE

► FLEXIBILITY

Mac Rak repairs any type of pallet rack for both roll form or structural systems.

► BEST WARRANTY

Our products are backed by the best impact warranty in the industry.

► ENGINEER APPROVED

Manufactured to meet and exceed the highest industry standards. Stamped engineering approval is available.

► 100% MADE IN U.S.A.

All products are exclusively manufactured at our facility in Missouri.

► CUSTOM SOLUTIONS

Available for all repair and protection products.

► TURNKEY

From surveying your site to component design, manufacturing and installation, we provide a complete solution.

► NATIONWIDE

Our extensive distributor network allows us to serve customers across the entire U.S.

► INNOVATION

Our products and processes continue to raise industry standards.



Integrated rack repair and protection

- Mac Rak designs, engineers and manufactures all of our products in-house.
- Mac Rak punched post products are produced using prime 55,000 psi minimum yield steel.
- We cut, punch, form, weld, powder coat and inspect each product at our own facility.
- We produce over 30 column designs which allows Mac Rak to offer repairs for all types of pallet rack systems.
- Our optional Quick Ship Program ensures that you have extremely quick access to eligible Mac Rak products.

Largest American Pallet Rack Repair and Protection Company



MOBERLY PLANT

Typical pallet rack repair process:

- ▶ Repair process 4x faster than frame replacement
- ▶ Repair requires 75% less product movement than frame replacement
- ▶ About half the cost of frame replacement
- ▶ Less internal resources expended
- ▶ Minimal disruption to operations
- ▶ Provides superior impact resistance
- ▶ Approved industry practice

Turnkey—nationwide repair solutions for any and all types of damaged pallet rack.

Engineer supervised products and processes

Bolt-on connectors & grade 5 hardware—no hot work permit or fire watch required

Certified professional installation crews

Protects life, limb and property

All products manufactured in the U.S.A. by Mac Rak.



PROUD MEMBERS OF

Most Innovative Engineered Pallet Rack Repair Kits

Racks need repair? Don't just repair them, upgrade them to Mac Rak.



Compatible with all racking brands

Repair with 75% less unloading of your racks

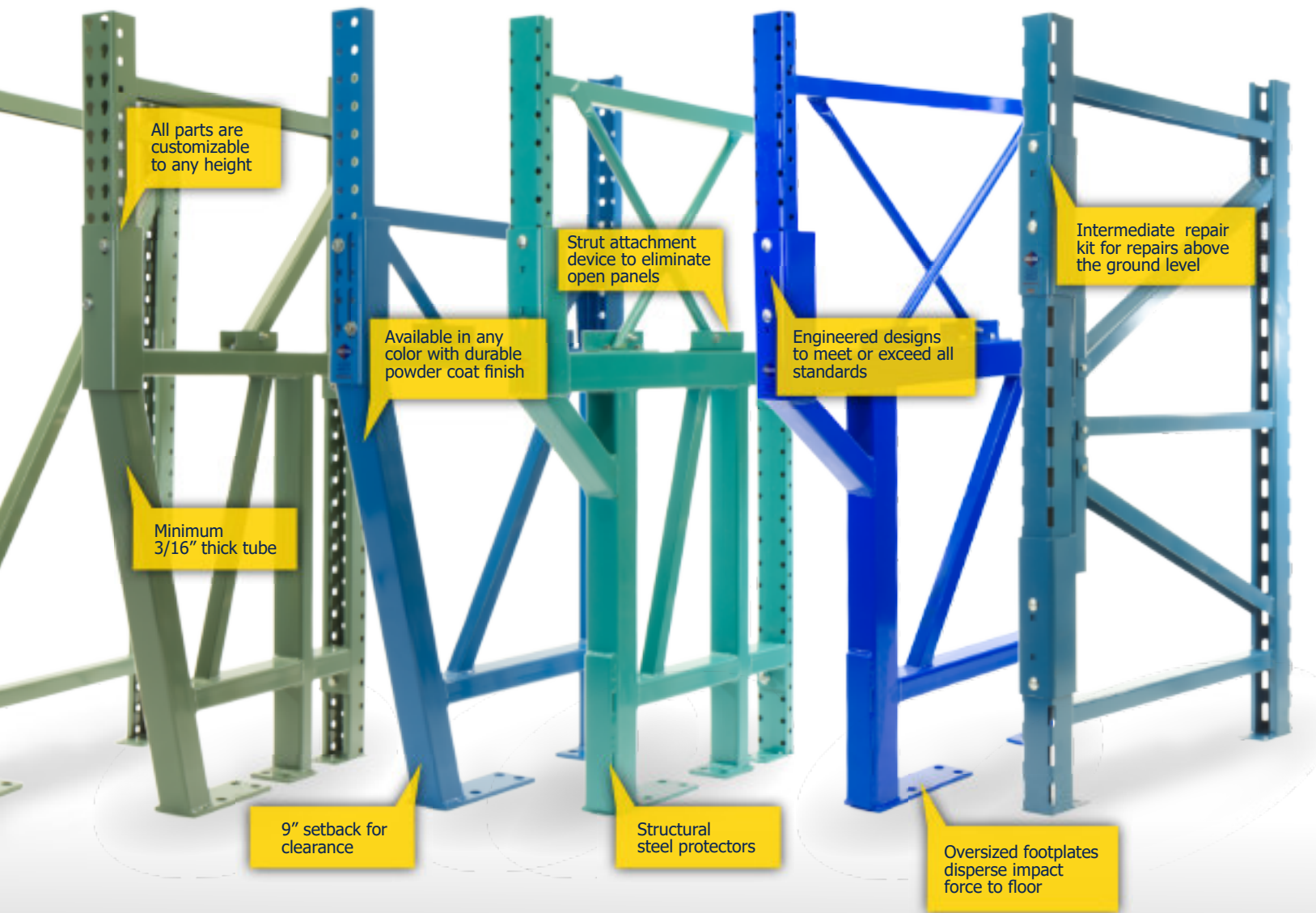
Complies with ANSI RMI 16.1 engineering requirements

Mac Rak Innovation Is Your Advantage

Mac Rak has been leading the industry in innovation for over 22 years. We were one of the first repair kits to market, and have the most innovative line up of pallet rack repair kits. More designs, more options, more ideas that turn your repair into an upgrade. This results in your racks being stronger, having more impact resistance, and more anchor strength than they did before your repair. Plus our repair process is 4x faster than replacing the same part. Why merely stay the same when you can upgrade to Mac Rak?

One Rack Repair Part Does Not Fit All

When searching for a company to keep your rack system safe and in compliance, you must insist on a rack repair company that is an RMI associate member that can help you with **100% of your pallet rack repairs**. A myriad of configurations might present themselves as a need in your warehouse. You might need a single-leg repair, a cantilever-leg, a repair with built-in impact resistance, a bottom 8" repair, or any number of other configurations. You need **a single source supplier** that can meet all your engineered pallet rack repair and protective guarding needs, and the only company in America that meets all those needs is **Mac Rak**.



50% more economical repair method than original parts

Most parts come with limited lifetime warranty

All parts are 100% customizable

Drive-In Racks



ELITE CANTILEVER

ADVANTAGE

ELITE SLANT LEG

Pallet Flow Racks



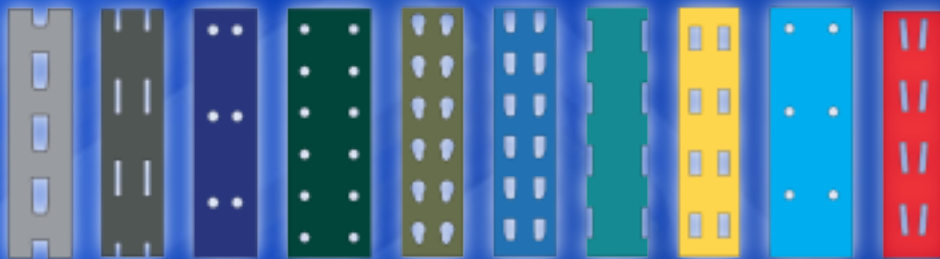
FRONTLINE

ADVANTAGE

ELITE VERTICAL

MAC•RAK

Mac Rak Manufactures
Punch Styles On 3" & 4" Column Widths



Products are powder coated to customer choice of standard rack colors.

All kits can be certified for areas of seismic activity through special or oversized footplate's and special additions to kits to accommodate the added forces found in seismic zones.

Selective Racks



BULLDOG



ELITE VERTICAL
DOUBLE LEG



ADVANTAGE

VNA Racks



FRONTLINE



ADVANTAGE NPD



ELITE VERTICAL

Push Back Racks



FRONTLINE



ADVANTAGE NPD



ELITE VERTICAL

ENGINEERED
REPAIR SOLUTIONS
FOR ALL TYPES OF
RACKS ON ALL TYPES OF
PALLET RACK SYSTEMS



▶ Elite Vertical Single Leg

The ELITE Vertical Single Leg Pallet Rack Repair Kits are for the most demanding and harshest environments. It has the industry's highest impact resistance in a vertical leg repair kit while maintaining the original rack design profile. Designed to repair and reinforce a damaged front vertical frame post and undamaged rear post. Proprietary beam reattachment hardware allows for easy beam adjustment for either roll form or structural beams using original end connectors. It does not require cutting off beam end plates which reduce beam capacity and can compromise seismic structural integrity.

- ▶ Fully bolted, easy to install
- ▶ Exceeds 75,000 lbs. of impact force up to 12" high
- ▶ Available in all frame depths and kit heights over 2'-0"
- ▶ "V"-Nose deflector or non-protruding deflector plate is optional
- ▶ Chose from any standard rack color powder coat finish
- ▶ Standard ¾"x7" wedge anchors with massive ⅜" thick foot plates



▶ Elite Vertical Double Leg

The ELITE Vertical Double Leg Pallet Rack Repair Kits are designed to repair and reinforce a damaged front vertical frame post and damaged rear post. Proprietary beam reattachment hardware allows for easy beam adjustment for either roll form or structural beams using original end connectors. It does not require cutting off beam end plates which reduce beam capacity and can compromise seismic structural integrity.

- ▶ Fully bolted, easy to install
- ▶ Exceeds 75,000 lbs. of impact force up to 12" high
- ▶ Available in all frame depths and kit heights over 2'-0"
- ▶ "V"-Nose deflector or non-protruding deflector plate is optional
- ▶ Chose from any standard rack color powder coat finish
- ▶ Standard ¾"x7" wedge anchors with massive ⅜" thick foot plates



► Elite Cantilever

The ELITE Cantilever Double and Single Leg Kit reduces future rack damage in high impact areas by moving the front lower rack leg nine inches behind the original location. This offset increases aisle width and distance to outrigger impact. Designed to repair a damaged cantilever front frame post and damaged rear post.

- Fully bolted, easy to install
- Exceeds 75,000 lbs. of impact force up to 12" high
- Available in all frame depths and kit heights over 2'-0"
- "V"-Nose deflector or non-protruding deflector plate is optional
- Chose from any standard rack color powder coat finish
- Standard 3/4"x7" wedge anchors with massive 3/8" thick foot plates



► Elite Slant

The ELITE Slant Double and Single Leg Pallet Rack Repair Kit reduces future rack damage in high impact areas by moving the front lower rack leg nine inches behind the original location. This offset increases aisle width and distance to outrigger impact.

- Fully bolted, easy to install
- Exceeds 75,000 lbs. of impact force up to 12" high
- Available in all frame depths and kit heights over 2'-0"
- Chose from any standard rack color powder coat finish
- Standard 3/4"x7" wedge anchors with massive 3/8" thick foot plates

► Bulldog



► Bulldog Rack Repair

The Bulldog Pallet Rack Repair Kit is a dual purpose repair and high impact outrigger protector. It provides ultimate impact protection for the most vulnerable frame section, the bottom 6" to 8" of the front column.

- V-nose, flat plate, or no deflector options are available
- Fully bolted, easy to install
- Exceeds 50,000 lbs. of impact force up to 12" high
- Standard $\frac{3}{4}$ "x7" wedge anchors with massive $\frac{3}{8}$ " thick foot plates

Protects the most vulnerable bottom section of the frame

► Frontline



► Frontline Repair

The Frontline Pallet Rack Repair Kit returns any frame post back to the original design specifications. The Frontline Repair Kit is best for VNA and rear post applications. It reuses existing factory bracing or accommodates new bracing when needed.

- Available in all heights over 18"
- It allows for maximum beam adjustability
- An additional backer is added for added impact resistance
- Available in most common punch styles

Our most economical repair

► Intermediate



► Intermediate Repair

The Intermediate Pallet Rack Repair Kit is designed and engineered to repair mid to upper frame damage. It eliminates the need for an excessively tall repair kit. Constructed of a front column and a reinforced backer column for added impact resistance.

- This "Mac Rak exclusive" kit reuses undamaged factory bracing or accommodates new bracing when needed
- Accommodates all beam heights while maximizing your repair budget
- Available in most common punch styles for maximum beam adjustability



Advantage

Heavy Duty Repair Kits Roll Formed Steel



► Advantage Internally Reinforced

This reinforced column pallet rack repair kit offers repair and protection against outrigger impact damage. The internal seven gauge channel reinforces the corners of the column and allows for the lowest possible beam elevation.

- Made of the same punch style as the parent frame. Recommended for narrow aisles
- Accommodates lowest possible beam elevation
- Reuses existing OEM struts, or accepts new struts when needed
- Kit has a massive 3/8" thick oversized footplate with two 3/4" x 7" anchors

► Advantage Protruding Deflector

This reinforced column kit offers ultimate repair and protection against outrigger impact damage. Made of the same punch style as the parent frame. Robust "V" Nose protector.

- It accommodates most beam levels above 18"
- Reuses existing factory bracing or accepts new bracing when needed
- The front post is reinforced with a backer channel for additional strength
- Kit has a massive 3/8" thick oversized footplate with two 3/4" x 7" anchors

► Advantage Non-Protruding Deflector

This reinforced column kit offers ultimate repair and protection against outrigger impact damage. Made of the same punch style as the parent frame. Recommended for narrow aisles, due to minimal 1/4" deflector protrusion.

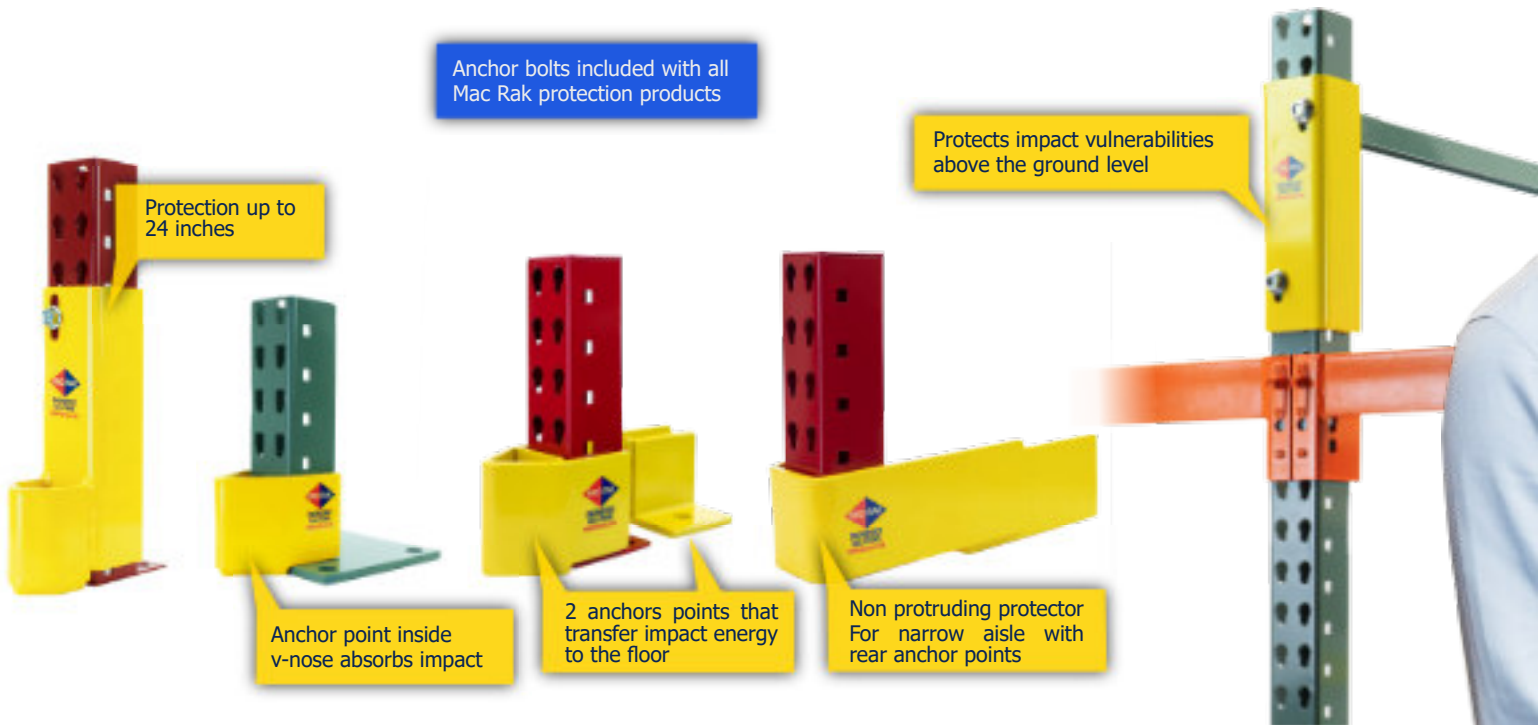
- It accommodates most beam levels above 18"
- Reuses existing factory bracing or accepts new bracing when needed
- The front post is reinforced with a backer channel for additional strength
- Kit has a massive 3/8" thick oversized footplate with two 3/4" x 7" anchors

End of Row Guards

Dock Door Frame Guard



Anchor bolts included with all Mac Rak protection products



Max Guards

Uncompromising Pallet Rack Protection

Why compromise on rack protection when your racks hold tens of thousands of dollars worth of products?

Advantages of Mac Rak Protectors

1. All guards isolate the parent frame from the impact force.
2. All products are engineered to maximum strength and impact.
3. Heavy duty US manufactured steel not plastic or non-certified foreign steel.
4. Selection of types so only one vendor is needed for protection.
5. Manufactured in our plant in the USA. This means we control welding, steel, finishing and all quality points. Many competitor's protectors have an unknown point of manufacture.
6. Finish quality, many competitor's protectors are merely spray painted with a light coat. Mac Rak powder coats all of our protectors.
7. All guards are highly customizable to fit any requirement.



Compatible with all racking brands

Reduce damage where 75% of all damage occurs

Thick US certified structural steel

Manufactured in our own plant in USA

▶ Column Protectors



▶ **MAX Guard V-Nose**

The MAX Guard V-Nose is a column guard that protects racks from outrigger damage. This is a robust standard 4" high 3/8" steel pallet rack guard. It is solid steel and not cheap plastic. It has superior impact protection from forklift damage because it is independently anchored and not bolted to the rack column. This transfers the impact energy to the floor and not to the column anchors. It is customizable to fit your needs perfectly. Designed to match your exact footplate size.



▶ **MAX Guard Force Non-Protruding**

This standard 4 inch high steel post protector is designed for narrow aisle applications. Provides the ultimate outrigger impact protection you can buy without a protruding front anchor, period! Using two wedge bolt anchor points, the MAX Guard Force provides more than 50,000 lbs. of impact resistance while defending against column twisting. The anchor fastens this guard to the floor rather than to the column. Thus transferring impact energy to the guard rather than the column. There is no other Column Protector Guard manufactured today that can compete. Designed to match your exact footplate size.



▶ **MAX Guard Force V-Nose Protruding Deflector**

This standard 4 inch high steel post protector provides the ultimate outrigger impact protection you can buy, period! Using two wedge bolt anchor points, the MAX Guard Force Protruding V-Nose Post Protector provides more than 50,000 lbs. of impact resistance while defending against column twisting. The anchor fastens this guard to the floor rather than to the column. Thus transferring impact energy to the guard rather than the column. There is no other guard manufactured today that can compete. Designed to match your exact footplate size.

Column Protectors



▶ **MAX Guard Plus V-Nose**

This Pallet Rack Column Protector provides simultaneous column impact protection against forklift truck counterbalance weights, outrigger, and product impact. The anchor fastens this guard to the floor where the impact force is absorbed. The wraparound column protector is then fastened to the column to unitize the high impact protection of the wraparound portion of the guard to protect the frame. Designed to prevent column twisting with single anchored frame footplates.

- ▶ Available in standard 12", 18", or 24" or higher heights with 4" high V-nose deflector. Accommodates all column and footplate designs
- ▶ This is not a flimsy boot, weak angle or other gimmick
- ▶ Designed to match your exact footplate size



▶ **Max Guard Shield**

This heavy-duty column guard is designed to be installed anywhere on the column, above the floor, to prevent damage from forklift and product impacts. It is made from robust 1/4" thick steel and is available in any required length. Excellent at shielding the front frame column from accidental impact from pallets, products, or even overhead forklift guard collisions that damage the frame and reduce overall weight-carrying ability as well as seismic integrity. The most common application is installing the shield above the first and second beam level to protect the column due to poor visibility of these lower levels created by the forklift mast and attachments, restricting the view for the forklift operator.

End of Row Guards



▶ Round End of Row Protector

Mac Rak's round, "Heavy Duty" Rack Protection, is the ultimate standard for end of a row rack protection and tunnel frame guarding. Heavy duty round, end of row guards, keep equipment and product a maximum distance away from the vulnerable upright frame. Constructed with 12" tall, 1/2" thick round ends, to isolate the front frame post from impact damage, as well as 6" x 4" X 3/8" angle that protects the frame's side and rear post (highly customizable).



▶ Formed End of Row Protector

Designed for narrow aisle applications, Mac Rak's formed heavy-duty end of row rack guards are the ultimate standard for end of row and total frame guarding in VNA applications. The face of the guard wraps tightly against the front of the column. (5/8" maximum aisle protrusion.) Constructed with 12" tall, 1/2" thick formed ends to isolate the front frame post from impact damage as well as 6" x 4" X 3/8" angle that protects the frame's side and rear post. (Highly customizable, available in all lengths over 12").



▶ Dock Door Frame Guard

Dock door frame guards protect your valuable, all too often abused dock door pallet rack frames from the abuse and destruction from forklifts, pallets and miscellaneous debris resulting in expensive emergency repair bills. These heavy gauge guards keep pallets and miscellaneous debris from damaging your tracks resulting in expensive emergency repair bills.

The Mac Rak dock door rack guards anchored to the floor for maximum strength and rigidity to isolate the impact from the dock door frame. The bright yellow safety powder coat paint looks great and is highly visible.

Outlining the Process

STEP 1. Damage Assessment Inspection

After choosing Mac Rak as your **engineered pallet rack repair** and protection provider, the most significant period of any pallet rack repair project is certainly the assessment survey. It is important that the study is directed by a certified damage rack technician.

During all warehouse racking damage inspections the noticeable damage to the racking (as observed from a floor level inspection) is recorded and a proposal for the mitigation of all rack damage is presented to the warehouse operator.

All our proposals have two components. The first is a point by point list which will recognize the specific location of all damaged rack parts by referencing their pallet slot location. The second contains a **total cost sheet** (material and work) in light of a list of materials produced from your particular assessment. Whenever the situation allows, photos of the damaged rack parts will be included for the survey report.

STEP 2. Manufacturing Process

Mac Rak produces our entire product offering in America. Our plant is located in Moberly, Missouri. There is no use of foreign steel which often will not be certified to American steel grade. This ensures the **highest quality control possible**. We keep up unlimited oversight over the plan and assembling of the entirety of our items. All Mac Rak engineered formed punched post repair kits are made in house from prime 55,000 PSI minimum yield steel.

STEP 3. Installation of Repairs and Guards

Warehouse pallet rack repairs can commonly be done in about 25 minutes when utilizing Mac Rak's engineered proprietary hydraulic racking jack. Our rack repair procedure results in negligible off-stacking and dismantling of the racks. Additionally, it **will not significantly disrupt the warehouse operations** that a massive unload and reloading of rack space would involve. Mac Rak's installers are trained with a technical preparation program involving reliable working strategies in addition to broad field experience. Rack repair ventures might be booked for any shift, including over weekends, and will be performed by completely insured proficient installers.

Note: All product information is subject to change without notice

Call (815) 723-7400 Visit MacRak.com



BEFORE

Inspections,
quotes and installation,
one call, does it all.

You need a team that provides turnkey service. A team that doesn't miss details. A team with the experience that will keep you and your racks free from issues. When you are focused on your job, you need Mac Rak. Our **nationwide teams** will come in and make your job easier by handling all of your rack repair and protection needs.

- ▶ Certified Inspection Teams
- ▶ Quoting
- ▶ Certified Welders
- ▶ Manufacturing
- ▶ Certified Installation Teams
- ▶ Follow Up & Warranty
- ▶ Quick Ship Options
- ▶ Multi-Site Service

DANGEROUSLY DAMAGED RACK





AFTER

**REPAIRED
STRONGER
THAN BEFORE**

**Turnkey
Solutions
From Mac Rak
Nationwide**

MAC•RAK

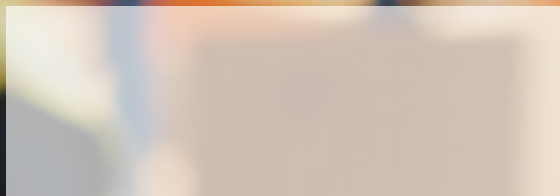
#1 In The USA

When lives, time and reputations are on the line, Mac Rak is the number one choice for engineered pallet rack repair and protective guarding solutions.



- ▶ Leading manufacturer in USA
- ▶ Engineered to exceed RMI specs
- ▶ Lifetime warranty
- ▶ Maximizes value in your budget
- ▶ Turnkey service

Mac Rak, helping families reunite safely after every shift.



All specifications are subject to change.
See macrak.com for additional technical specifications on every product.

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