

APEX RACK REPAIR CHECKLIST



Upright Frame Damage

- Inspect the upright from front-to-back, down-aisle, and at the corners, looking for damage and or deflection (bend in the upright column greater than ½").
- Report any deflection gap greater than ½" at its widest point.
- Report tears in the steel.
- Report separation between column and seismic backer if applicable.
- Inspect for leaning uprights up-and-down, frontto-back, and side-to-side. Uprights that are leaning (or out of plumb) have a reduced capacity and are considered unsafe.
- Measure if the upright is too far out of plumb -- divide the total height by 240. If the upright is out of plumb by more than 5/8", it should be unloaded and replumbed.
- Areas with extra space between beam levels, known as the unsupported span, have fewer connections to stabilize the system in the event of a strike. Note any damage in these areas as it may be significant.
- Note all damage to standalone racking, as it has fewer stabilizing features than secured systems.

Row Spacers - Back-to-Back Racking

Single rows of rack should meet the recommended height-to-depth ratio of 6:1, which is equivalent to the distance from the floor to the top beam level, divided by the depth of the frame.

Systems with a height/depth ratio of 6:1 or greater require row spacers at a maximum of 8' to 10' apart to help secure the rack.

- Check for special anchors and footplates or overhead rack ties also used to stabilize the systems.
- Record any deficiencies or damaged components as well as any missing spacers.

Struts

- Record any deflection in the strut of more than 1/2".
- Record tears or broken welds where the struts connect to the upright.



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Footplates, Shims & Anchors Addressing Immediate Warehouse Safety Risks Record as damaged if there are rips or tears. Unload severely damaged rack and mark with caution tape to prevent further damage or injuries. Record as damaged if twisted by more than ½". ☐ Check that shims are secure and not sliding out. General guidelines for immediate rack safety concerns include: ☐ Check that each footplate has a secured anchor. Record loose, missing, or damaged anchors. Rack that is not anchored to the ground Severe beam damage where the beam is creased or **Beam Damage** buckled Record dents or tears in the beam. Upright damage where the upright is completely creased or out of plumb Record extensive beam deflection (or bowing) typically caused by rack overloading. ■ Excessive strut damage, or multiple damaged struts, in a frame line or row Allowable beam deflection calculation - divide the beam ☐ Multiple damaged items in a row or system length (from the inside of the columns) by 180. If the deflection gap is equal to or greater than ½", the beam is **Additional Warehouse Safety Concerns** overloaded and unsafe. While your conducting your pallet rack inspection, **Beam Connectors & Supports** note the following warehouse safety features to ensure everything is in place & in good condition: Examine beam connections, including connectors, Capacity load plaques provided by the rack flanges, and safety pins. manufacturer must be conspicuously posted for Record damaged beam connectors or flanges. each rack type Record damaged safety pins and clips, if applicable. Inspections must also include fire suppression systems Record damaged or missing wire decking. to ensure they are in compliance. Record damaged or missing pallet supports. ☐ Check that there is sufficient lighting and it is in

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