Picture This: Racking and Stacking



Warehouse racks and material stacks are nothing to take lightly. A damaged rack can lead to hundreds of thousands of dollars in lost and damaged inventory. Then there are the injuries and fatalities caused if the racks and materials fall. Your co-workers, delivery drivers, and even customers can be injured and killed if a rack or material falls. You certainly don’t want to be the one who causes any of these unfortunate outcomes or the supervisor in charge when an incident occurs.



https://imgur.com/a/r5oyd

Share these guidelines with your warehouse teams, including managers, and ensure they know how to spot racking hazards and what to do when they identify a hazard.

1. Floors and supporting surfaces. Where is your stacking racking to be situated? Floors or surfaces that are to support stacks, shelving, racks or other means of storage need to be able to sustain the intended load, as well as shock loads. If the stored material becomes waterlogged because of rain or after a fire has been put out, the floor needs to be able to take this extra weight too.
2. Adequate designs. Racking and other structures used for the storage of materials need to be designed to support and contain the materials that they will store. Again, make allowances for the possibility of stored materials becoming waterlogged, and for shock loads from placing materials or from accidental contact by the handling equipment. If pallet loads are to be stacked tier on tier, the lower pallets need to be of suitable strength and in good condition. The unit loads must be able to support the weight above.
3. Fire safety. Fire-protective partitions must be used between stored items that

are more or less vulnerable to fire risk.
4. Corner ends. The corners or ends of shelving and racking need to be protected from damage by forklift trucks or other mechanised equipment by steel posts, angle irons or other methods.
5. No racking, shelving, fixture or other means of storage should be placed somewhere, or extended in height, so that someone climbing on to it or removing stored goods, either manually or mechanically, can come into contact with live electrical wiring or unfenced machinery. Material shouldn't be loaded or unloaded from stacks or racking if there's a risk of workers directly or indirectly contacting unfenced machinery, or touching live electrical wiring.

Sometimes safe stacking is as easy as following the "DO NOT DOUBLE STACK" label and yet sometimes even the simplest of instructions are not followed. More often than not, safe stacking takes a bit more thought and planning than just reading a label.



https://i.redd.it/atd83k8bv3gz.jpg

Stacking guidelines include:

- Block Stacking – Stack square items in a cube, making sure to secure them with some kind of strapping like wire or plastic shrink wrap.
- Brick Stacking – To ensure even more security, turn each level of a stack 90 degrees. This helps hold the items in place should the stack be bumped.
- Pinwheel Stacking – For even more protection than the brick pattern, turn each quadrant—not just each level—of items 90 degrees. Patterns like this help "lock" everything in place.

- Irregular Stacking – When dealing with irregularly shaped items, try adding sheets of plywood between each layer for added stability.
- Lumber – remove all nails removed before stacking and as a general rule don’t stack lumber more than 16 feet (5 meters) high if workers will be handling it manually.
- Cylindrical Materials – poles or pipes need to be blocked on the sides so they don’t roll off the pile.
- Bagged Materials –use tapered stacking (a bit like a pyramid, with the layers getting narrower the higher up they are) and place in interlocking rows.
- Barrels and Drums – stack symmetrically and if stored on their sides, block them to prevent rolling.
- Moving Materials – when removing materials from a stack, always take them from the top of the stack first.