

# Stacking Safety Do's & Don'ts



People get killed when materials in the workplace aren't properly stacked. Sometimes the stack collapses on top of them; sometimes they get crushed by an object that falls from the stack. It may be a trip, slip, fall, fire, chemical spill or any other kind of incident. The potential scenarios are endless. And in many cases, they're the cause of a worker's carelessness. What never changes, though, is the imperative to ensure that workers engaged in stacking or unstacking operations, or who work on or near stacks are aware of and exercise proper safety practices. Here are some basic stacking safety do's and don'ts.

## DO'S

- Stack material only in the designated area, which should be clearly marked and in the charge of a responsible worker
- Mark or label the location of each item to be stacked after carefully determining its type, shape, load, uses, etc.
- Stack heavy materials at the bottom levels
- Stack light materials can at the top levels
- Stack items that are most likely to be used first in the front where they'll be accessible

- Stack items that are likely to be used later behind the first use items
- Provide a small compartment or holders for small loose items
- Ensure stacks don't block or interfere with walkways, escape routes, emergency systems, emergency equipment or doors
- Maintain a gap of about 1 m between the stack and roofs, ceilings, light fixtures and sprinkler heads
- Maintain a free space of about 1 m on all sides of the stacked material and a space of 450 mm on the wall side
- Stack material only on firm, level surfaces that you know are capable of supporting the load
- If necessary, provide packaging or pallets where appropriate
- Use handling accessories
- Use mechanical assistance to eliminate the need for manual handling
- Perform a risk assessment where manual manipulation is unavoidable
- Ensure that no sharp edges of the materials jut out toward the walkways
- Store hazardous materials or chemicals with their WHMIS Safety Data Sheet (SDS)

- Perform housekeeping to avoid debris, remove garbage and remove combustible material to minimize the risk of fire
- Stack small pipes in the holder
- Ensure that stacks of large pipes are securely wedged with a stopper at the base
- Store materials of different lengths in separate piles
- Ensure there's enough separation to allow loading, unloading or stacking of material easily when designing and installing the racks
- Provide suitable means of access, including a ladder where necessary, for workers required to climb or remove material from stacks
- Ensure proper signaling and communication between the rigger and equipment operator
- Use drum rack for stacking drums
- Use suitable method of stacking, either vertical or horizontal based on type of material
- Provide steel post or other suitable barrier to protect the corners or ends of shelving and racks from damage by forklift or other powered machines
- Use a ladder instead of standing on boxes or materials
- Use appropriate PPE, including hard hat, gloves, safety shoes,

etc.

- Use a fire protection partition when stacking different combustible or flammable material
- Ensure you're properly trained to stack the material safely

### **DON'TS**

- Don't stack materials more than 3 times the base width
- Don't stack incompatible materials together
- Don't use a rack made of combustible materials and not likely to retain water
- Don't lean against temporary structures
- Don't stack materials more on the displaced material
- Don't keep legs close to the material or load while handling, as it tilts at any time
- Don't stack materials or load and unload materials near running machinery or near live electrical cables
- Don't keep fragile material at the bottom where it will be susceptible to break
- Don't stand on racks, shelf, boxes, chairs
- Don't stack materials in incompatible environments

- Don't stack materials in places where they'll block escape routes, emergency equipment and pathways
- Don't stack the material within 450 mm of a wall'maintaining the clearance will allow for inspection
- Don't stack material directly on floor to protect from moisture or water logging
- Don't use damaged pallets or unsafe racks that may be prone to collapse
- Don't use faulty mechanical tools or machines for stacking the material