

# How to Stack Oddballs

Proper stacking in the workplace ensures that materials are accessible when needed; it keeps the stacked materials in proper condition; and most important of all, it prevents injuries. Stacking materials works best when all of the stacked items are of equal or proportional configuration, size and weight. Unfortunately, this isn't always the case. Your stockrooms, storage rooms and warehouses are bound to include some oddballs. These oddballs are most likely to cause tip-overs that lead to injuries. Here are 12 tips to stack the oddballs safely.

## The Dangers of Improper Stacking

Stacking items until they fall is a game some of us played as children. Then, as we got older, we stacked playing cards to form houses. When the pile came tumbling down, it was all for laughs. But in the workplace, properly stacking materials is no game. It poses a risk to workers' safety, as this summary of a fatality report indicates:

Split black beans trickled slowly from the top of the double-stacked tote bags. But the 60-year-old worker wasn't paying attention to the bags stacked behind him. He was focused instead on opening the sliding door that would let him out of the narrow aisle between the stacks and the retaining wall. As the bag's contents spilled out, its center of gravity shifted until suddenly 2,000 pounds of beans fell upon the worker, pinning him against the lower level of the retaining wall. He died of suffocation.

When officials investigated the worker's death, they identified three contributing factors:

- Overfilled tote bags; Untied tote bags; and Double-stacked tote bags unsupported at outside edges.

When items are double-stacked, the bottom item must provide a flat and sturdy foundation for the item above. In this case, the tote bags were overfilled. Consequently, the bags were rounded on the top. Result: The stack was unstable.

## 12 Ways to Stack Mismatched Items

To prevent stacked materials from falling, collapsing, rolling or sliding, you must plan the stack. You need to consider the object's weight, size and shape, as well as its accessibility. Securing stacked bagged or round objects is especially tricky. Here are 12 pointers for stacking such seemingly unstackable items:

Try to keep articles of the same size and weight together.

Keep heavy and/or unstable items nearer to the floor.

Secure bags and bundles by stacking them in an interlocking pattern or in alternating directions to increase stability.

Ensure that all bags are properly closed, to prevent items from spilling or shifting.

Place barrels, balls, rolled material and metal bars in racks to prevent them from rolling.

If you don't use racks, stack round items on solid, level surfaces.

Block and chock bottom tiers of drums, barrels and kegs to prevent rolling or shifting in either direction.

Band together large cylindrical objects that are stacked vertically.

If you're using racks to stack long items, don't let parts protrude past the end.

Place planks, sheets of plywood or pallets between tiers to provide a firm and flat surface.

If materials can't be stacked due to size, shape or fragility, store them on shelves or in bins.

Stack only to safe heights.

## Stack It Right

When stacking, be conscious of:

- Height limitations; Clearance from sprinkler heads; Access to aisles, exits and emergency equipment;
- Safe loading levels; Damaged shelving or pallets; and Incompatible ingredients in cylinders or barrels.

## Conclusion

Improperly stacked materials can result in serious accidents, so take a moment to plan the stack. Safety is the name of this game. Remember, you won't always be around to ensure the stacked load is stable. Unlike a house of cards, it has to be able to stand on its own.

Catherine Jones - Safety Xchange