



WHITE PAPER

Building a safe warehouse



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When building a warehouse, there can be many unanswered questions to consider. What are the most important aspects and how do you create a warehouse that is safe for both your employees and your products?

Warehouses can be hazardous environments, especially if designed incorrectly and inappropriately, lacking in safety features or poorly maintained. In Sweden, all companies are required by law to ensure that their employees work in a safe warehouse environment using safe equipment. There are both national and European safety standards to consider when checking whether your warehouse fulfils the requirements.

The Swedish Work Environment Authority has issued provisions (AFS 2006:4), for example, offering guidance on safety as regards pallet racks and other storage racks. The requirements include, for example, racks being marked with maximum loads by section and storage shelf, firmly anchored and fitted with collision and slide-through guards. On an international level, we have the European standards (SS-EN 15635, SS-EN 15629 and SS-EN 15512), stipulating how racking should be sized and designed. These standards describe, among other things, rack design and assembly and the handling of different types of warehouse fittings, from planning to the handling of damaged components

Although there is still a great deal of variation in compliance with the standards, things are steadily improving. Safety awareness among companies is considerably greater today than it was ten years ago. One of the reasons for this is that today we work at so much greater heights, which means greater demands on safety features.

The most common accidents seen in warehouse environments involve collision damage, such as to pallet rack structural components. Goods dropped from forklifts, due to procedural shortcomings or carelessness, are another common type of accident. Poor quality pallets and goods falling from racks due to a lack of safety considerations are other common problems.

What are the most important issues to consider?

The alpha and omega of a safe warehouse is to invest in stable, good quality racking, equipped with upright, collision and slide-through guards, safety netting and, preferably, mesh decking and mesh shelving. Choose a rack that is designed to eliminate the risk of falling goods in the event of a collision. Also keep in mind that the quality of the sheet metal used for the racking can vary greatly between suppliers.

Concrete floors and good lighting are essential to ensuring safety as well. As is forklift aisle design, which should be adapted to the operations conducted at the warehouse and the prevailing conditions. Widths and other measurements depend on the type of forklift used.

Just as important as having correctly sized forklift aisles is correctly dimensioning the entire racking system. That is, you must use the sizes stipulated in the applicable standards for the intended loads and heights.

A common mistake made by many companies is to build a warehouse based on their current needs, without allowing for future developments and flexibility. As such, consider how your business might develop over time and design your new warehouse accordingly. A rack of good quality is a major investment with a long service life and is considerably cheaper if done right from the start, rather than needing to be remodelled, modified and supplemented later on. A rack of inferior quality also requires a greater amount of maintenance and repair, which can prove costly in the long run.

Last but not least, never underestimate the impact of your employees. Committed and well-trained personnel are essential to ensuring safety.

Important features of a safe warehouse:

1. Concrete floors.
2. Good lighting.
3. Appropriately designed forklift aisles adapted to your operations.
4. A stable rack of high quality.
5. The right equipment in the shape of upright, collision and slide-through guards, safety netting, mesh decking and mesh shelving.

Keep in mind!

- Allow for possible future needs and design your warehouse accordingly.
- Train and inspire your personnel.
- Follow the applicable regulations and enlist help when planning and designing your new warehouse.