



Sheet or panel product storage

Technical Bulletin

Storage Equipment Manufacturers Association Ltd www.sema.org.uk

Some of the common hazards in the storage of sheet materials and panel products are;

- Being struck or crushed by moving stock, for example, if the goods fall during unloading, or during a lifting or handling operation.
- Musculoskeletal injury from manually moving stock from storage systems
- Cuts from sharp edges

This technical bulletin aims to provide guidance on the storage of these materials. The duty holder should ensure that arrangements are suitable for the materials being handled and stored.

Sheet material and panel products should always be stored and stacked so that they are not likely to move, fall or cause injury and, in general, the height of stored stock should be minimised.

These materials should be securely bound when being transported or lifted by mechanical handling or lifting equipment and when being stored above floor level. This is necessary so that the pack constitutes a stable unit load and so that individual sheets/panels cannot slide off the pack, or the pack disintegrate. This is often done using strapping or banding.



Figure 1 Example of sheet material strapped to a pallet

If an individual sheet needs to be chosen from the banded/strapped pack it should be brought to ground level for picking.

Once the banding/strapping is removed there is a potential for sheets to slide off causing injury.

Once sheet picking is complete the pack should be re-banded/strapped before being moved, lifted, or returned to storage.



Figure 2 Strapping removed - sheets can slide off



Figure 3 Strapping removed - sheets can slide off

If unbanded/unstrapped material is stored and picked at ground level it is recommended that a suitable and sufficient restraint is provided behind the pack to prevent the movement of sheets into other bays, pedestrian zones, equipment aisles, or routes. In the case of cantilever racking, this can often be provided by the cantilever column itself although, if the materials are placed between the cantilever columns, then the columns cannot act as restraints, and additional restraints will be necessary.

The integrity of the restraints should be monitored and should be checked periodically by a competent person and should be included in the rack inspection and maintenance regime.

When this sort of operation is carried out in conjunction with adjustable pallet racking, a restraint (as shown diagrammatically in Figure 4), should be provided at the rear of single-sided runs, or along the middle of double-sided runs, to safeguard against sheet movement from the pack. The restraint should be located at least 50mm behind the location of the goods (when in the correct position) so that the restraint is not hit during movement and placement of the pack. The pack should not impinge into the operating aisle. This may necessitate an increased back-to-back dimension for double-sided runs.

Prior to retrofitting a restraint a suitable and sufficient design assessment should be carried out by a competent person in conjunction with the rack supplier. Any imposed forces need to be considered in the design of both the restraint and the racking.

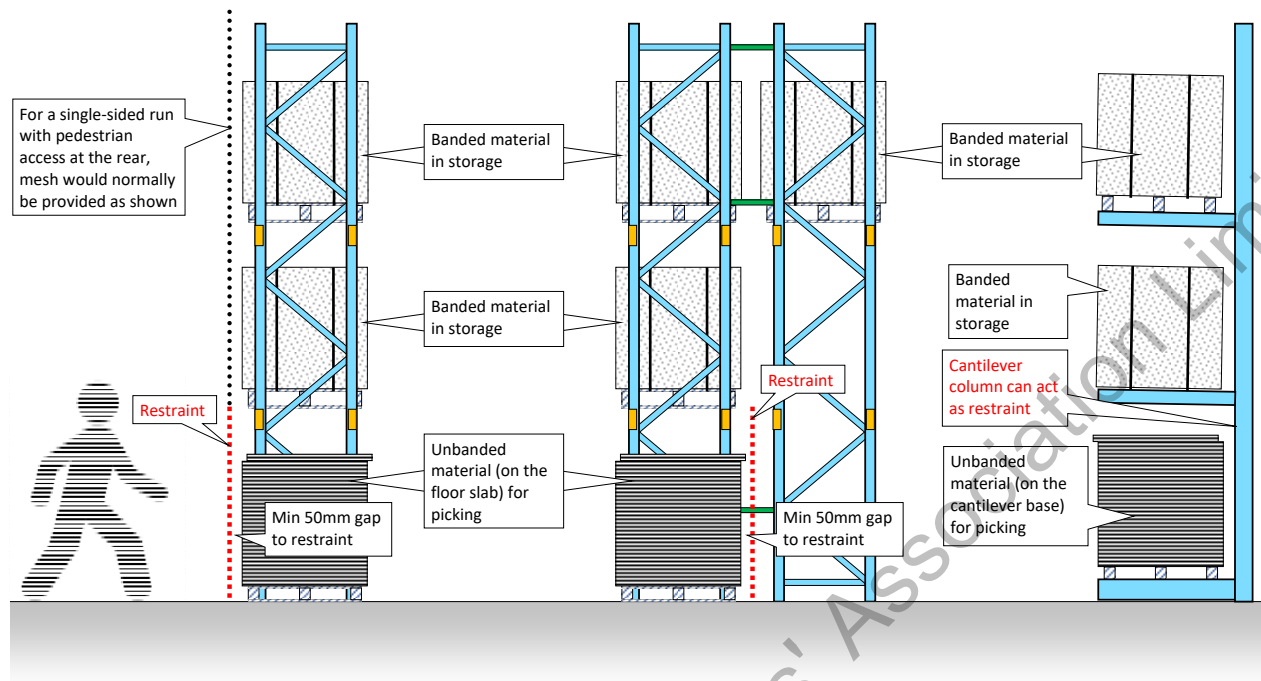


Figure 4

Without a suitable and sufficient assessment identifying all risks, the characteristics of materials, and appropriate safeguarding for the storage system to be used and/or work area, then unbanded/unstrapped sheet materials may have the potential to slide or be displaced. Unbanded/unstrapped packs stored above the floor slab (or cantilever base) level shall be specifically assessed identifying all risks, shall be formally recorded, and made known to those who may be affected.

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