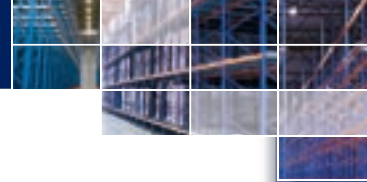


C1. Mezza-Stow flooring system



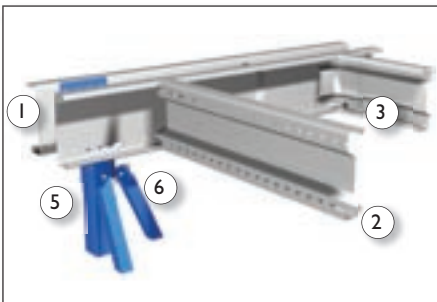


C1. Mezza-Stow flooring system



Mezza-Stow

The Mezza-Stow® system has been developed for the construction of system floors. Unlike conventional steel constructions, it can be easily expanded, moved or modified for future requirements. Combined with a full range of accessories, such as staircases, handrails and safety gates, it lends itself to use in almost any situation: multitier flooring systems, shelving and pallet racking systems combined with flooring, etc. Using the modular components of the Mezza-Stow flooring system a wide variety of span lengths are possible, with loads from 350 to 1000 kg/m².

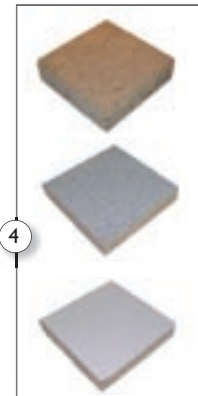


PROVEN BENEFITS

- Cheaper than conventional structural steel floors.
- Modular system which is more flexible and easy to expand to meet future needs.
- Easy integration of staircases, hand rails, lifts and conveyors.
- Fitting of air ducts, sprinkler pipes or electrical cabling is possible.

MAIN COMPONENTS

1. Main beam
2. Secondary beam
3. Beam connector
4. Wooden decking
 - high density chipboard,
 - with anti-slip top coating,
 - with white polyester coating at underside.
5. Column
6. Bracing profiles



FINISH

Standard galvanised finish for beams and powder coating RAL 5015 (sky blue) for columns. Optionally powder coating RAL 9002 (grey white) for the main and secondary beams.

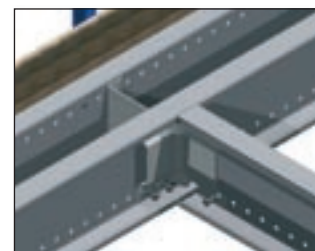
OPTIMISED DESIGN CHARACTERISTICS

Rigid connection

The joint between the main beam and the secondary beam is very important for the stability of the construction. The loads from the secondary beam are transferred to the main beam without any deformation of the connector. The connector fits on all types of main beams.

The secondary beam

The secondary beam is a sigma profile, designed to ensure that it is hardly sensitive to torsion under load. Its height is 270 mm, which corresponds with the height of the main beam. The sigma profile is made from high quality micro-alloy steel. The type of wooden decking or grating, its size and the load capacity determine the span between the secondary beams.





THE FLOORING SUPPLEMENTS

THE HANDRAILS

Safety requirements applicable to guard-rails EN ISO 14122-3:2001

Handrails, with a min. height of 1100 mm, are needed if the height of the possible fall exceeds 500 mm and the gap between a platform and the structure or wall is greater than 200 mm.

The guard rail must include at least one knee rail and a plinth of at least 100 mm height.

The specific local requirements and regulations should be applied.

The handrail-profiles are either in a wooden or steel finish.



THE STAIRS

Safety requirements EN ISO 14122-1/3-2001

Stairs can be integrated in the racking, in the added flooring structure or outside the mezzanine.

Depending on the country different types of stairs are possible, in particular the size of the steps and the slope of the stairs are determined by local regulations (between 20° and 45°).

Specific requirements

1. The rise of all steps shall be constant and max. 250 mm.
2. The headroom shall be 2300 mm minimum.
3. The clear width of the stair shall be minimum 600 mm but preferably 800 mm. If passage of several persons simultaneously the width shall be 1000 mm.
4. The climbing height of individual flights shall not exceed 3000 mm. Otherwise a landing is needed, with length minimum 800 mm. Only in the case of a single flight climbing height may not exceed 4000 mm.
5. The slope and depth of the steps shall be according the local regulations.



SAFETY GATES

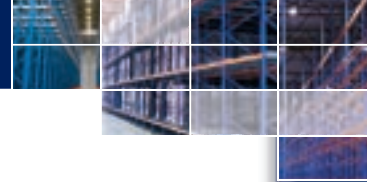
Where access through the guard rail is required, a self-closing gate is used. A gate has the handrail and knee rail positioned at the same level as the guard rail that it extends to.

The dimensions of the safety gates should correspond with the basic dimensions of the pallets.





C1. Mezza-Stow flooring system



CUSTOMIZED FLOORING CONSTRUCTIONS



GRATING FLOORS

In some cases grating is used for the decking of the mezzanine floor: The grating is available in various dimensions, according to the uniformly load capacity required, the point load and the span of the secondary beams.

◀ **Grating is used for air circulation**

COMBINED WITH PALLET RACKING



Picking floors constructed in between the pallet racking system



Mezzanine construction at the infeed - outfeed of the AS/RS-system

The mezzanine profiles can be connected onto the standard pallet racking frames using specially designed connectors. Pallet racking combined with mezzanine is often applied for picking floors or to support in- and outfeed conveyors for automated racking systems.

FREE PASSAGE IN ALL DIRECTIONS



In some cases free passage in all directions should be provided. This specially designed bracing comprises pallet racking frames installed just below the main and secondary beams.

HEAVILY LOADED MEZZANINES



For heavily loaded installations or long beam spans another type of mezzanine shall be applied. Mostly hot rolled steel constructions are used, eventually combined with cold-rolled secondary beams.