



The UK's No. 1 manufacturer of mezzanine floors

davicon
mezzanine floors

YOUR PLATFORM FOR FUTURE GROWTH

Case Study

Milton Keynes Project for John Lewis

John Lewis
johnlewis.com

The John Lewis Partnership comprises of 70,000 permanent staff members (partners) who own, amongst other interests, 29 John Lewis shops, 231 Waitrose supermarkets and Greenbee.com – which combined turned over nearly £7.4 billion in 2009.



The John Lewis Partnership used a major systems integrator to engineer and install a complete integrated solution for the new warehouse operation and when they needed to install Mezzanines within the scheme for the new Milton Keynes warehouse and distribution centre,

Davicon designed and manufactured over 10,000m² of mezzanine flooring, and provided all the required ancillaries, including staircases, ladders, step overs, bridges, pallet gates and handrail. Davicon then worked to a strict 16 week installation programme, providing a complete project team to ensure every step of the installation went smoothly; including all the co-ordination between the fire rated ceiling which Davicon also supplied and all the new services which were installed in parallel with the mezzanine floor.



Davicon's design had to be carefully planned to integrate with the systems integrators requirements and equipment layouts.

Davicon ensured that all relevant British Standards were adhered to; 30 minutes of fire protection was provided for both the mezzanine structure and staircases and several fire escape staircases provided were DDA compliant.

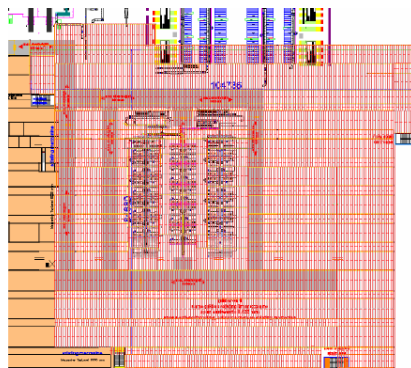
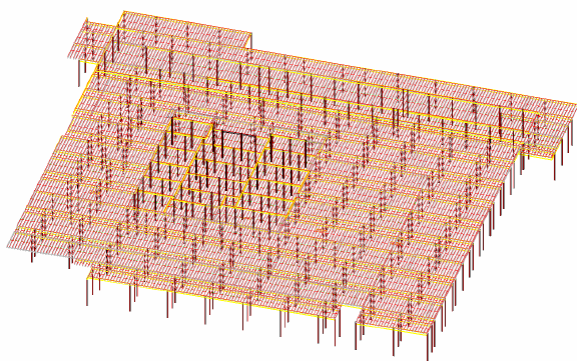
Phase 1 Installation 2006:- JLP Milton Keynes - Full integration with the automated picking and storage system ensuring a smooth installation.

Platform Size	: Total platform area = 9391m ² .
Column Grid	: 5.0m x 5.0m.
Height	: 4 levels
Con. Depth	: 571mm at 6.0m level for 8.0m span in area of increased loading. 495mm in other areas at this level. : 343mm at 3.85m and 3.0m level : 394mm at 2.8m and 1.0m level.
Decking	: 38mm Particleboard (Grade C, standard type P6, foil-backed to Class O)
Base Plates	: 300mm x 300mm x 12mm

- Loads
- : Imposed load (stated) - **5.0 kN/m² U.D.L** plus
 - : Imposed load (assumed) - **8.33kN/m² U.D.L** i.e. 1200kg on 1.2m x 1.2m pallet in area indicated on drawings at 6.0m level plus
 - : Dead load (mezzanine self weight) - **0.4 kN/m² U.D.L** plus
 - : Service load - **0.4 kN/m² U.D.L** plus
 - Point loads of **3kN** and **6kN**
- Deflection
- : All steel members have been designed with a maximum deflection of L/250 in accordance with the requirements of BS5950 Part 1 : 2000



Phase 2 Installation 2012:- JLP Milton Keynes - Full integration to ensure clashes were kept to a minimum.



- Platform Size : Rectangular in plan with 3 perimeter spurs and 1 cut-out for access staircase.
91m wide (extending to 104.7m over spurs) x 85.9m (extending to 91m over spur)
Total area approximately 8,820 m²
- Column Grid : Generally following the grid layout of the existing mezzanine; 8m East-West and alternate 5.5m and 2m North to South. There are many variations to this where it is necessary to avoid known floor mounted equipment and mezzanines.
- Height : +6000mm top of floor
- Construction Depth : Maximum 495 mm
- Decking : 38mm particle board P6 TG2
- Handrail : 190 linear metres circular hollow section twin railed c/w steel 15t0mm high kicker
- Access stairs : 2 No. part M staircase c/w intermediate landings leading from ground floor to +6000mm level. 1 stair is completely enclosed c/w doors so as to achieve a 30 minute fire protection.
- Loads : Imposed load - 5.0 kN/m² U.D.L
Dead load (mezzanine self weight) - 0.35 kN/m² U.D.L
Service load – none advised 0.4 kN/m² U.D.L
- Deflection : L/250
- Base Plates : 300 x 300 x 12
- Column Loads : 180kN, this and the floor mounted equipment and slab joint lines are defining factors in the final column positions.