technical data

June 2006

Safe loading
of beam and block floors

The installation of beam and block floors often involves pallets of blocks being lifted onto and being supported by the floor structure.

(Reference should be made to Precast Flooring Federation's CDM Regulation data sheet ref: PFF/HS-CDM).

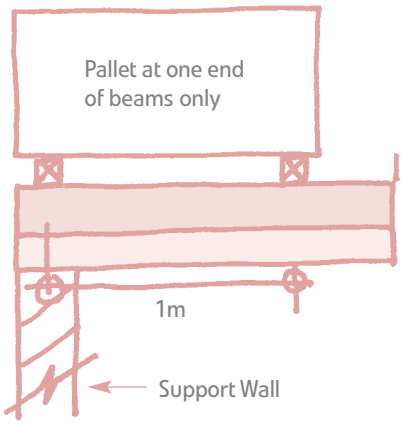

Figure 1
Parallel to Span

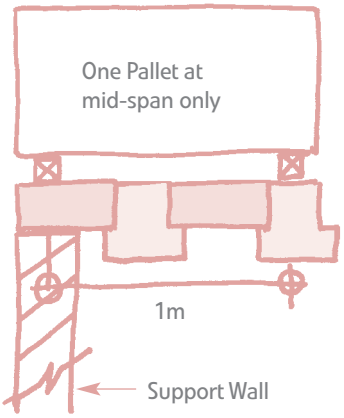

Figure 2
Perpendicular to Span

In order to ensure that the floor beams are not overloaded, the following recommended maximum spans should not be exceeded when using the three types of infill block commonly used in the floor structure. In any case of doubt, the floor manufacturer should be contacted.

The maximum clear spans tabulated below apply to 150mm deep beam and block floors under the following conditions (for other depths and layouts the floor manufacturer should be contacted):

1) The design dead load (including the weight of infill blocks for the full length of the beams in addition to the weight of the beams).
2) A nominal construction live load of 1.0kN/m2.
3) Beam spacing of approximately 500mm.
4) One end of the pallet is supported directly over a load bearing support.

PRECAST FLOORING FEDERATION
technically sound solutions

Precast Flooring Federation 60 Charles Street, Leicester LE1 1FB
Telephone: 0116 253 6161 Fax: 0116 251 4568
e-mail: info@precastfloors.info

www.precastfloors.info

Blocks		Maximum Clear Span	
Block type	Pallet Weight (kg)	Parallel to Span	Perpendicular to Span
Light	700	3.9	3.5
Medium	1500	2.4	2.4
Heavy	2000	1.9	1.9

Notes:

1. The pallets of blocks must be landed gently on the floor beams
2. No other stored material shall be carried by the beams supporting the pallets.
3. Pallets must not be placed over lintels.
4. Once the beams and blocks are installed, care should be taken to ensure that the design loadings for the floor are never exceeded (e.g. by storage of construction material).

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