

AL MANARATAIN



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PRESTRESSED CONCRETE T-BEAM & BLOCK FLOORS

Suitable for Ground and all Subsequent Floor Levels on Private Housing, Hotels, Hospitals, Commercial and Residential Developments

Low cost, all weather flooring

Immediate floor and working surface

Limited ground work-
minimum infill required

Fast-track construction results
in lowest cost flooring systems

Ease and speed of installation

Full layout and design
service available

Excellent noise reduction and fire
resistance on subsequent floor levels

Rapid response and
quick delivery



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T-Beams - Blocks Flooring made easy

The Al Manaratain Beam & Block Floor has been developed to provide a flooring system which combines two components which together result in a highly efficient and cost effective flooring system.

This Flooring System combines Prestressed Concrete T-Beams with standard Blocks with compressive strength of 7.0 N/mm², as Infill Blocks giving a flooring system which does away with the need for skilled labour because of its simplicity and ease of installation.

T-BEAM & BLOCKS

Production:

Prestressed T-Beams are cast in special moulds. The concrete used for precast production is a specially designed mix with a 28 day compressive strength of 75 N/mm², with a strict control on the quality of aggregates, sand and water used for the concrete production.

Curing:

All the T-Beams are cured in water for 7 days before being delivered to site.

Erection:

The erection of T-Beams is done by the experienced Al Manaratain Erection Team led by experienced supervisors to the required specification.

A Range of Applications

Our T-Beam & Block Floors offer further benefits of improved sound insulation and excellent fire stop properties.

The T-Beam & Block Floors are not restricted to private housing and have been widely used in other projects such as Flats, and Commercial Developments, Hospitals, Schools High-rise buildings...etc.

Fire Resistance:

Assessed in accordance with BS 8110, the unprotected joists have a nominal fire rating of approx. one hour, additional fire resistance will be obtained by underlining the floor with plasterboard.

Insulation:

The thermal transmission (U-Value) of Al Manaratain Floor construction depends upon the type of floor finish, floor size and insulation employed. Al Manaratain Technical Department would be pleased to furnish you with calculations and results on your proposed floor construction. U-Value: 2.90 W/m² C of our system without any floor finish.

Floor finishes

There are a variety of floor finishes, that can be applied. The most commonly used are: 150mm & 200mm Al Manaratain Floor Beams/Blocks with a 50mm thick screed finish which can be furnished with any layer of carpet, tiles..... etc.

Blocks

The infill Blocks used are manufactured to BS 6073, Part 1, 1981, and have a compressive strength of 7.0 N/mm².

The Advantages and Benefits

Quick

Limited ground works - minimum infill, if used for ground floor.

Versatile

T-Beam & Block Floor can be installed even in the most adverse weather conditions.

Fast

No skilled labour required, easily handled, stored on site and installed giving immediate working platform.

Design Benefits

Improved sound and thermal insulation properties one hour nominal fire resistance and it is not subject to rotting.

Available Sizes

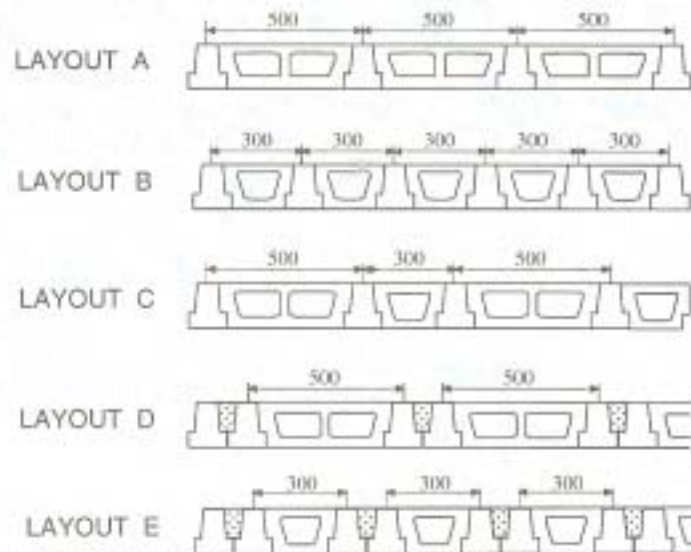
150mm & 200mm Deep Floors

Specifications

Al Manaratain Prestressed Floor Beams are designed in accordance with BS 8110 : Part 1 : 1997 and Part 2 : 1985



T-BEAM & BLOCK FLOORING LAYOUTS



IMPOSED LIVE LOAD IN KN/M2

1.5 HOUSING	2.0 APARTMENT	2.5 OFFICE	3.0 CLASSROOM	4.0 SHOPS	5.0 RESTAURANT
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FOR 150 MM DEEP BEAM FLOORING SYSTEM

LAYOUT - A MAXIMUM CLEAR SPAN IN 'M' FOR BEAMS AT 500 MM C/C					
4.6	3.93	3.76	3.61	3.35	3.14
LAYOUT - B MAXIMUM CLEAR SPAN IN 'M' FOR BEAMS AT 300 MM C/C	4.91	4.81	4.70	4.61	4.30
LAYOUT - C MAXIMUM CLEAR SPAN IN 'M' FOR BEAMS AT 500 MM C/C & 300 MM C/C	4.41	4.32	4.19	4.02	3.74
LAYOUT - D MAXIMUM CLEAR SPAN IN 'M' FOR BEAMS AT 130 MM C/C & 500 MM C/C	4.73	4.64	4.55	4.44	4.15
LAYOUT - E MAXIMUM CLEAR SPAN IN 'M' FOR BEAMS AT 130 MM C/C & 300 MM C/C	5.30	5.21	5.12	5.03	4.88

FOR 200 MM DEEP BEAM FLOORING SYSTEM

LAYOUT - A MAXIMUM CLEAR SPAN IN 'M' FOR BEAM AT 500 MM C/C					
6.25	6.13	5.99	5.77	5.57	5.26
LAYOUT - B MAXIMUM CLEAR SPAN IN 'M' FOR BEAM AT 300 MM C/C	7.24	7.11	7.00	6.88	6.67
LAYOUT - C MAXIMUM CLEAR SPAN IN 'M' FOR BEAM AT 500 MM C/C & 300 MM C/C	6.67	6.56	6.43	6.33	5.95
LAYOUT - D MAXIMUM CLEAR SPAN IN 'M' FOR BEAM AT 170 MM C/C & 500 MM C/C	7.06	6.93	6.83	6.70	6.43
LAYOUT - E MAXIMUM CLEAR SPAN IN 'M' FOR BEAM AT 170 MM C/C & 300 MM C/C	7.76	7.61	7.15	7.39	7.19

- Notes :**
1. The above table gives maximum clear spans in meters
 2. 1.5 KN/m² allowed for finishes
 3. Spans do not apply to loading from storages or industrial applications
- * This is a marketing catalogue and not for specifications
 * Slab design and layout is to be done by our design team



Our T-Beam & Block flooring system can be used anywhere



Hotel



School



Commercial Building



Mosque