

Beam and Acoustic Flooring

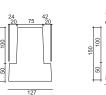
Datasheet V.01.2

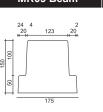


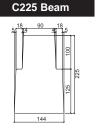
This floor is to be constructed in accordance with the Robust Details E-FC-6 & 7 specifications. Please consult the appropriate data sheets before starting this type of construction. It not only requires specific floor construction, but also bearing supports, insulation detail and ceilings to comply.

From the supply of beams only to a complete structural floor, our client need only select those elements that meet their requirements.

Span Load Table MI04 Beam MR09 Beam







Block		Superimposed	Cases			Cases			Cases		
Density		loadings kN/m2	S525	S413	S300	S572	S460	S347	S534	S420	S307
65mm Screed Finish 1.5kN/m²	650 kg/m3	1.5	4.80	4.80	4.80	5.84	6.39	6.80	7.36	8.00	8.00
		2.0	4.54	4.80	4.80	5.53	6.06	6.78	6.99	7.66	8.00
		2.5	4.29	4.70	4.80	5.26	5.78	6.49	6.67	7.33	8.00
	1350 kg/m3	1.5	4.52	4.80	4.80	5.51	6.07	6.80	6.95	7.64	8.00
		2.0	4.27	4.78	4.80	5.25	5.79	6.53	6.64	7.31	8.00
		2.5	4.07	4.55	4.80	5.02	5.54	6.26	6.36	7.03	7.94
Dry Finishes 0.2kN/m2	650 kg/m3	1.5	4.80	4.80	4.80	6.80	6.80	6.80	8.00	8.00	8.00
		2.0	4.80	4.80	4.80	6.46	6.80	6.80	8.00	8.00	8.00
		2.5	4.50	4.80	4.80	6.05	6.61	6.80	7.60	8.00	8.00
	1350 kg/m3	1.5	4.80	4.80	4.80	6.44	6.80	6.80	8.00	8.00	8.00
		2.0	4.80	4.80	4.80	6.03	6.62	6.80	7.55	8.00	8.00
		2.5	4.80	4.80	4.80	5.69	6.26	6.80	7.15	7.86	8.00

General notes

- No prestressed unit is to be cut or drilled without submission to our technical department.
- Shot-fired fixings are NOT PERMITTED in beams or blocks.
- Prestressed units have an inherent upward camber and due allowance should be made in any finishes to cater for this.
- Differential cambers are likely to occur due to manufacturing/construction tolerances or where short and long units are adjacent or at change of direction of spans.
- Some form of leveling screed by a general contractor is recommended for polystyrene and chipboard or 'Floating' floors to accommodate slight differences in camber and level between top of block and top of beam.
- Garage floors require a reinforced C30 concrete screed.
- Holes can be accommodated by the omission of blocks and made good with in situ concrete by the general contractor after.
- Beam products are generally delivered on articulated vehicles therefore appropriate hardstanding and access is essential.
- The Contractor must inspect the floor units at the time of delivery on supply only contracts and sign the delivery ticket, as no liability for damage can be accepted at a later date.
- Ensure before lifting that the crane is sited on firm level ground and there is sufficient clear working area for turning and slewing with no overhead obstructions.

Installation Guide



1. Perimeter scaffolding to be no more that 900mm below finished floor level is required along with internal fall protection system such as a fully decked out platform, Air Bags or Nets.



2. Replace split course with shutter tray being bedded onto parallel walls.



3. Position beams onto bearing walls in the correct bays as shown on the drawing. Required beam bearings are typically 100mm on Masonry and 75mm on steel.



4. Ensure beams do not project into the cavity. Partition walls will need additional beam support, refer to the suppliers layout drawing.



5. Position beams using infill blocks at each end to ensure correct spacing for each beam.



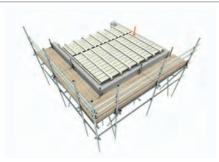
6. Edge shutter trays are required to be positioned under the beam ends and bedded on to the bearing walls (as well as the parallel walls). The ends of the beams hold these shutters in position.



7. Continue with the beams being positioned at the correct spacings as shown on the suppliers drawings. Particular attention is required as the blocks are just to bear onto the edge of the wall to allow for the insitu concrete toping to be placed over the bearings (step 13).



8. When all the beams are in place complete the fixing of the infill blocks. The edge blocks need to just bear onto the parallel wall to allow for the insitu concrete toping to be placed over the bearings (step13) Any side lips on the blocks to be removed from the last parallel row of blocks.



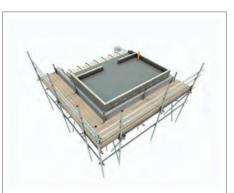
9. Complete the rest of the floor until fully beamed & blocked out.



10. A C30 concrete toping is to be placed over the infill blocks and side and end bearings. This is to be levelled off using the top of the beams as a screed rail.



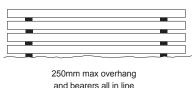
11. Partitions can be built off the floor once the concrete has cured.



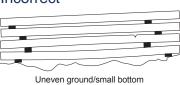
12. Insulation and finishes to be applied in accordance with the robust detail specifications.

Storage

Correct

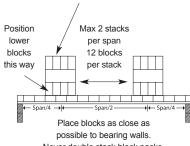


Incorrect



bearings/bearers out of line = DAMAGE

Place blocks on beams no closer than 1.2m centres measured along the supports



Never double stack block packs. Do not place packs of blocks mid span.

Timber bearers must be lined vertically through the stack at a maximum 250mm from the end of the units.

In addition to the precautions to be observed when stacking, e.g. the position of bearers, care must be taken to ensure that the ground or surface on which the components are to be stacked is suitable.

The ground must be firm and level, and wherever possible stacking of components should be on firm hard-core or oversite concrete.

The height to which components can be safely stacked on site will be greatly influenced by the condition of the ground on which they bear.

Another prime consideration should be the height to which a man can reach to pass lifting chains or slings around the components.

Similar length units should be stacked together.

Cutting

The cutting of units can be undertaken by trained, competent operatives wearing appropriate Personal Protective Equipment (PPE).

Be aware that hand arm vibration will be a hazard encountered when any cutting operations are undertaken. We recommend that the manufacturers guide is thoroughly read prior to commencement, these guides can be used to establish the safe working timescales for the particular piece of equipment being used.

If cutting operations are necessary:

Employ a hand held 'cut off saw' using a specific blade manufactured for that machine, preferably a 14" Stihl or Partner Saw with a cutting disc suitable for cutting precast concrete products. To reduce dust emissions, water suppression devices should also be used.



Safety Warning

- · Protective clothing should be worn.
- · T-beams compact in on themselves when lifted, KEEP HANDS CLEAR TO AVOID INJURY.
- · Ensure good manual handling techniques.
- Internal fall protection must be used when working at height.
- · Beam products are generally delivered on articulated vehicles therefore appropriate hardstanding and access is essential.



















During lifting

- The Contractor must inspect the floor units at the time of delivery on supply only contracts and sign the delivery ticket, as no liability for damage can be accepted at a later date.
- . Ensure before lifting that the crane is sited on firm level ground and there is sufficient clear working area for turning and slewing with no overhead obstructions.





