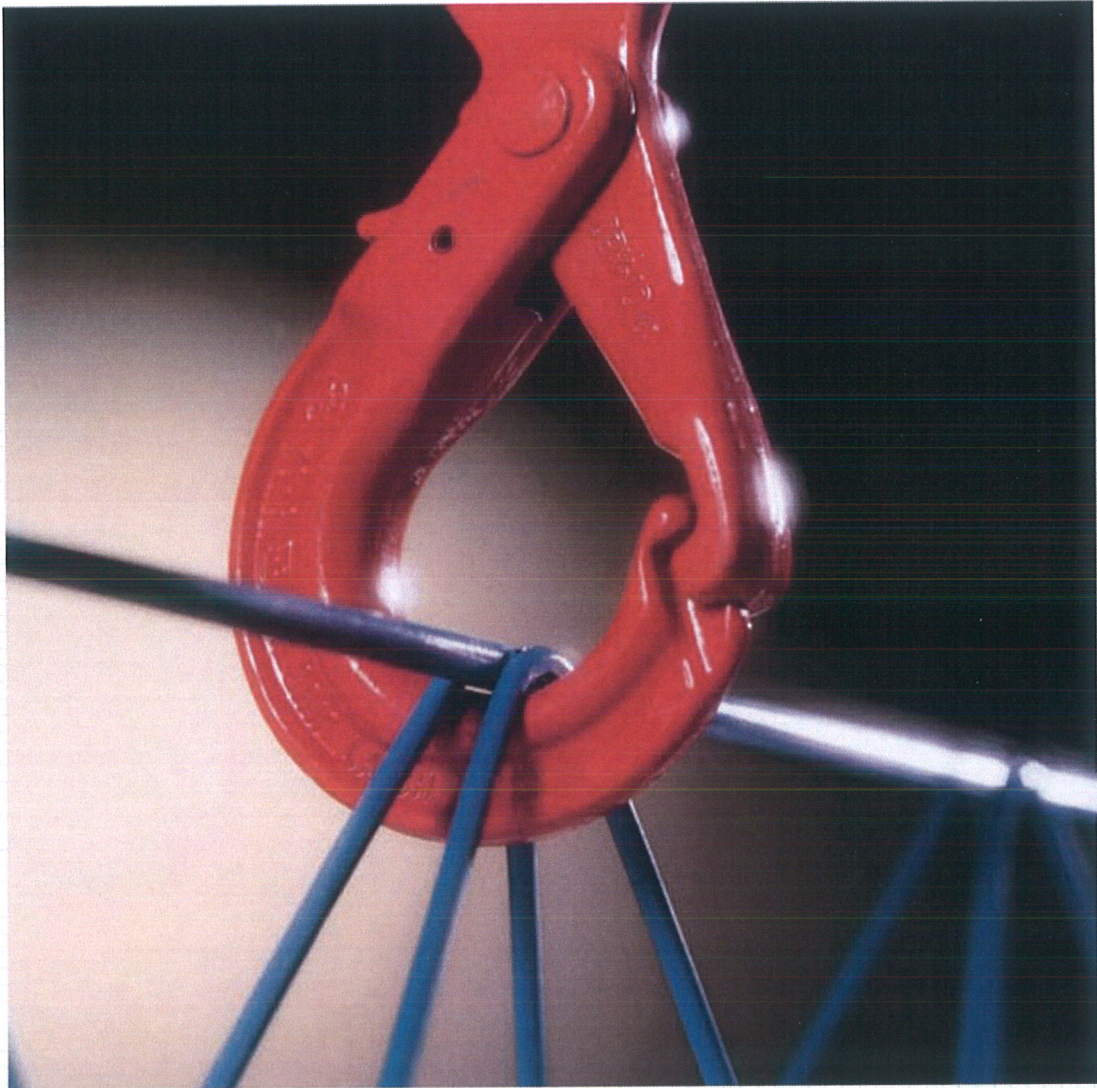
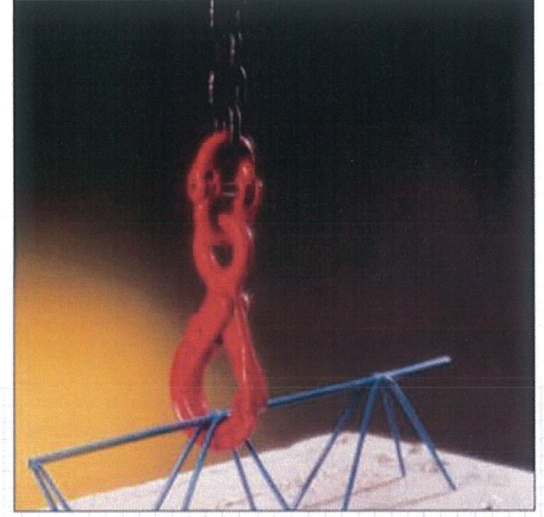
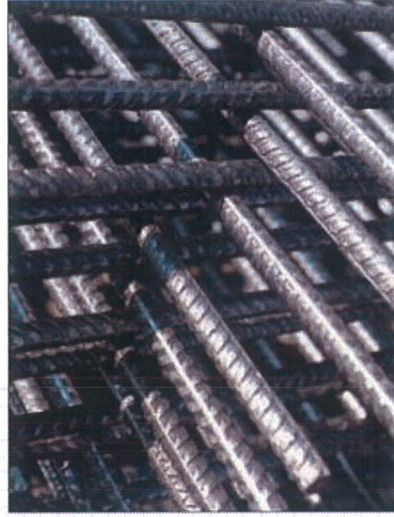


MANUAL FOR BASE SLABS



Manual for mounting KAISER OMNIA base slabs



What is a Kaiser Omnia base slab?

The Kaiser Omnia base slab is a floor made of reinforced concrete. The slabs have a flat underside and are reinforced to guarantee the necessary strength. The web girders and the bottom rods form part of the reinforcement. The diagonal supports of the girders absorb the shore force of the joint between the poured concrete and the base slab. The topmost reinforcement steel and the diagonal supports provide the necessary rigidity when installing the base slabs.

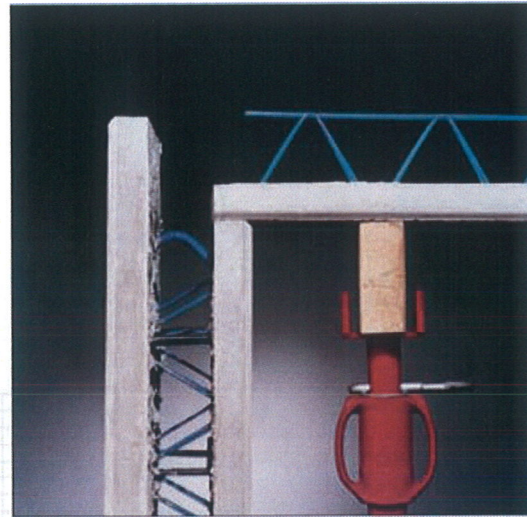
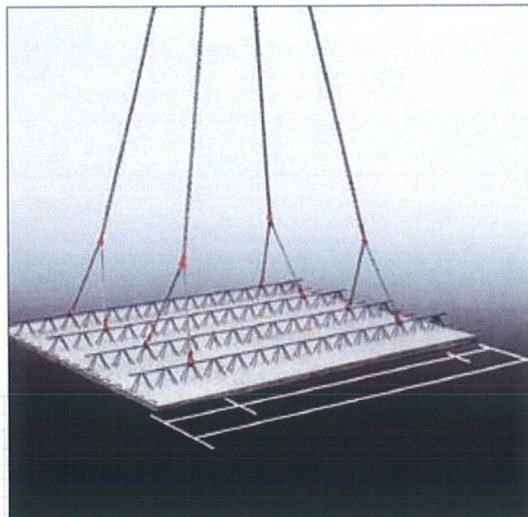
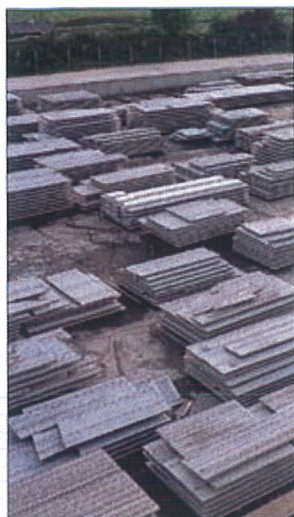
Unloading Kaiser Omnia base slabs

Base slabs are unloaded from the truck with the construction site crane and are usually installed at their final location. Their standard weight is approximately 125 kg/m². The hooks are hooked into the diagonals, not on the top reinforcement steel. Upon unloading, a leveller must be used, either a type with steel cables/chains or else a fixed frame with steel cables/chains. This ensures a balanced distribution of the weight of the slabs over the web girders. In addition, the distance between the suspension and the edge of the slab must equal approximately 1/5 of the total length of the slab. The slabs are loaded such that they can be placed directly from the truck to the right location, unless the loading calls for a different order.

If the slabs must be temporarily stored on the construction site, this must be done on a sufficiently solid flat surface. In order to prevent damage, an angle box is placed on the top rod of the web girder. All angle boxes must be positioned perpendicularly above the square timbers. At most 10 slabs may be stacked on top of each other.

Always see to it that:

- The hoisting cables have been inspected and have the right loading capacity;
- The crane operator and the person responsible for unloading have eye contact with each other at all times;
- The hooks are hooked into the diagonals, not to the top reinforcement steel;
- You always wear a safety helmet, suitable gloves, suitable clothing and shoes.



How are Kaiser Omnia base slabs installed?

Support

Before the base slabs are placed, the lower supports must be placed. The distances between the assembly supports are indicated on the construction diagram. The yoke beams must always be placed diagonally on the web girders (including for balconies). If the slabs are less than 3.5 cm on the wall, or if a foundation joint of at least every second web girder does not continue to the wall, then yoke beams must also be placed at the edge.

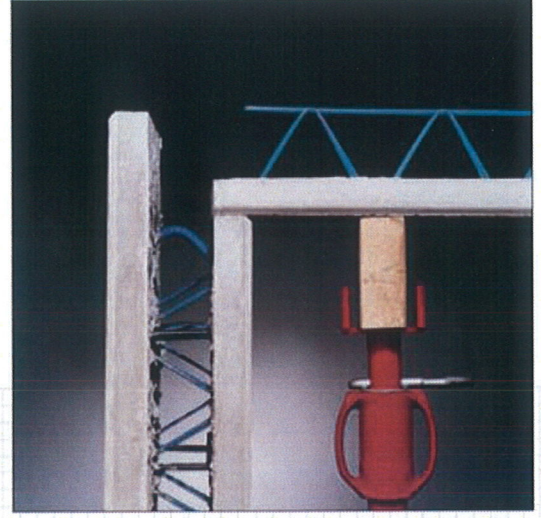
Placement

How far the base slabs must rest on the support walls is indicated on the construction diagram. The load bearing surfaces of walls and yoke beams must first be cleaned thoroughly. If the slab lies more than 4 cm against the wall, a mortar bed is required. An optimal connection in terms of height can be obtained as follows:

- If the support wall is approximately 1 to 2 cm lower than the bottom of the base slab, a mortar bed is poured before it is installed. When the slab is lowered onto the yoke beams, it will go down into the fresh mortar bed. It is important that the base slab be lowered completely horizontally. If one allows a slab to sink sideways, the mortar bed will be pressed away so far to one side that one will no longer obtain a complete support surface.
- If the support wall comes approximately 2 to 4 cm lower than the bottom of the base slab, after the placement of the base slab, the seam must be formed and then later on carefully filled with concrete. Good sealing is important. A distance of at least 3.5 cm must be born in mind between the base slabs for an intermediate wall.

Always see to it that:

- Every base slab is supported;
- The distances between the assembly supports and the girder zone is respected; these are specified on the construction diagram;
- The yoke beams are always transverse on the web girders (including on balconies).



Base slabs are preferably directly installed from the truck. All slabs are numbered on the assembly plan. During planning, one must see to it that the crane has sufficient lifting capacity for the heavy load. Base slabs must be lowered completely horizontally onto the load-bearing surface.

The butt joints between base slabs must have no difference in level over the entire transport length. Before the concrete is poured, one must ensure that the base slabs are supported on the yoke beams over the entire width, so that they cannot shift.

Necessary openings in the floor are already created during the production of the base slabs in the factory. On the construction site, openings and the edges are formed to the height of the finished floor. If the openings for the electrical facilities were not made during production, they can be drilled longitudinally along the bottom after placement. Note: if you drill along the top, pieces of the flat underside will fall off.

If the top of the base slab has become soiled, it must be cleaned in order to guarantee good adhesion between the base slab and the poured concrete.

As joint reinforcement, strips reinforcement mesh or loose concrete irons must be laid over the joints of the base slabs. The dimensions of this reinforcement are specified in the construction diagram. The reinforcement must lie sufficiently far over the joint edge of the base slab, at least with the length L that is shown in the construction diagram.

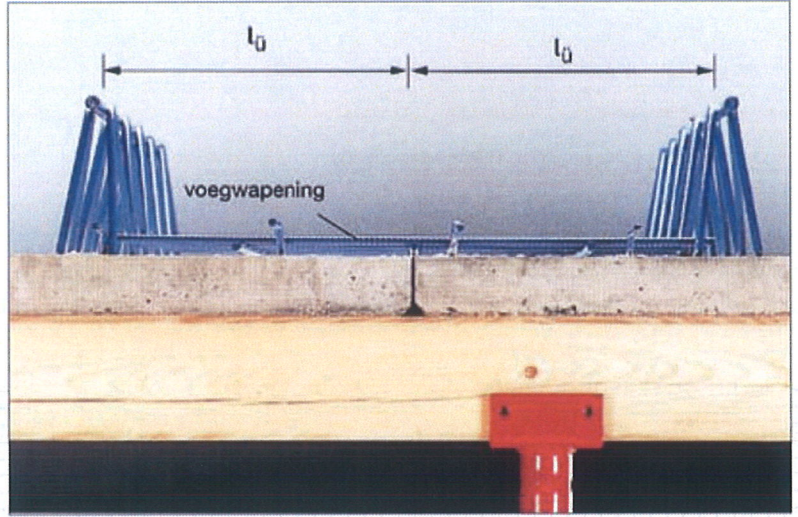
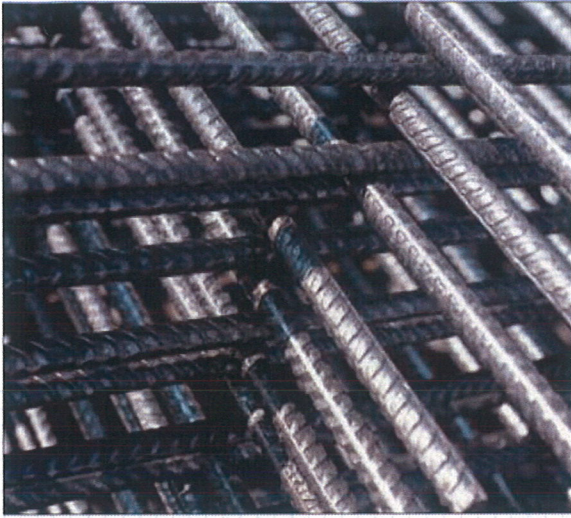
If installation lines are required in the base slab floor, these should be placed before the concrete is poured.

Always see to it that:

- Before concrete is poured, you check to be sure the base slabs are supported over the entire width of the yoke beams;
- The extra reinforcement is placed correctly.

The engineer in charge may need to approve the reinforcement before the concrete is poured.

- The concrete that is placed on the base slabs fulfils the quality and consistency requires. In addition, it must be poured and sealed in one single work phase.



The distribution of the extra reinforcement is shown on the construction diagram. Such additional reinforcement is normally provided for exchanges, transversely placed slabs and the like. The top reinforcement of the base slab is described in a separate reinforcement plan. This is required as top reinforcement for contiguous fields, overhangs, etc.

Before the concrete can be poured, one must ascertain the following points:

- The slabs have been correctly installed (span direction, openings).
- The slabs are sufficiently supported and are lying horizontally.
- There are no level differences over the entire joint length on the bottom.
- The reinforcement over the joints, the top reinforcement and the additional reinforcement have been placed properly, and the installation lines have also been considered.
- The engineer in charge may need to approve the reinforcement before the concrete is poured.

The concrete must be poured and sealed according to the specified quality and consistency in one single work phase. The reinforcement must not be shifted or flattened. During concrete pouring, one must check underneath whether the joint edges remain at the same level. In order to prevent possible damage due to excessive loads, the poured concrete must be poured evenly and without piling (additional load = $< 1.5 \text{ kN/m}^2$ or 1.5 kN per mesh girder possible).

The base slabs have a flat underside. If the slabs are not placed closely against each other, concrete mortar may dribble through the joints. Therefore, it is best to clean the joints and the wall edges after the concrete is poured.

Always see to it that:

- Before concrete is poured, you check to be sure the base slabs are supported over the entire width of the yoke beams;
 - The extra reinforcement is placed correctly.
- The engineer in charge may need to approve the reinforcement before the concrete is poured.
- The concrete that is placed on the base slabs fulfils the quality and consistency requires. In addition, it must be poured and sealed in one single work phase.