

# Shallow Composite Floor Decks

## Sitework

### Sitework Openings for Shallow Composite Floor Decks

Where openings are greater than 300mm, the engineer must design them and provide extra reinforcement around the opening. Openings can be accommodated up to 700mm in composite slabs by boxing out before pouring concrete and cutting out the deck after the concrete has cured. Larger openings require support trimming steel and these must be installed prior to the decking. Cut the decking away immediately and treat the opening edges like any other perimeter with edge trim.

Do not cut the opening in the steel deck before concreting or before the concrete has cured.

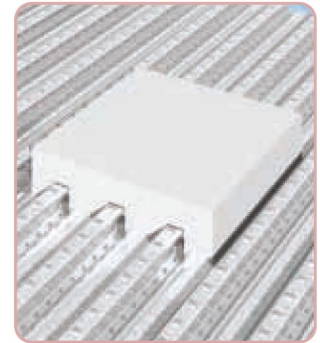
### Temporary supports

The contractor or designated sub-contractor is responsible for the safe design and installation of temporary props. Where the design calls for temporary supports, these must provide continuous support to the profiled sheeting. Spreader beams (timbers) should be used and supported by temporary props at one metre centres.

- The timbers and props must be of adequate strength and construction
- The temporary supports are placed at midspan or at other suitable centres if more supports per span are required.
- The spreader beams or timbers should provide a minimum bearing width of 100mm. The spreaders must not deflect more than 10mm and should be placed narrow edge up, see diagram.
- The propping structure is not to be removed until the concrete has reached at least 70% of its characteristic strength. The horizontal bearer timbers must be at least 100mm wide and should be propped at no more than 1m centres. Sometimes the specification may call for 150mm wide bearers, as determined by the structural engineer or concreting contractor.



*Timber Shutter*



*Dense polystyrene block*

The props should be stable without relying on friction with the deck for lateral stability. The end props in a row should be self supporting, and braced to the internal props.

### Temporary Props

#### Timber Bearer Guide (shallow decks)

All to be min. 100mm wide

Slab depth (mm)                      Bearer depth(mm)

up to 120                                      150

130 - 160                                      200

170 - 200                                      250

### Percussive drilling

We do not recommend percussive drilling into composite concrete slabs although small-scale rotary hammer drills are fine.

### Temporary support using an 'Acrow' type prop

