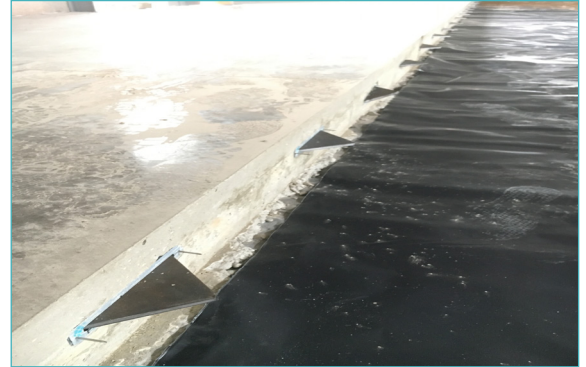


# Plate Dowels vs Round Dowels

Issue 1.4  
4/11/2019

Traditional round dowel bars only allow the concrete to contract in one direction. Plate dowels allow contraction of the slab in two lateral directions. Traditional dowel bars have to be inserted through timber formwork making the removal of the formwork difficult. Plate dowels use a plastic sleeve that is nailed to the timber formwork making the formwork removal very simple. The dowel plate is simply inserted into the sleeve once the timber has been stripped away.

No-fuss, no mess, just a clean and simple installation.



## Is this how your dowels look?

Timber formwork and bar dowels



## When they could look like this..

Timber formwork and DD6 plate dowels



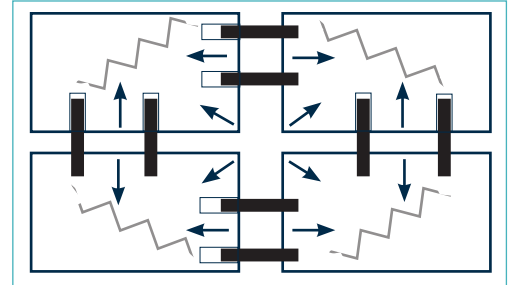
## Advantages of DD6 Plate Dowels

- Quicker and easier to install
- More cost-effective than dowel bars
- Eliminates dowel misalignment
- Eliminates slab 'lock-up'
- Superior load transfer
- No more drilling of timber formwork
- Easier removal of timber formwork
- No trip hazard
- Suitable for expansion joints
- Suitable for awkward shaped slabs and trenches
- Heavy-duty TD10 dowel available

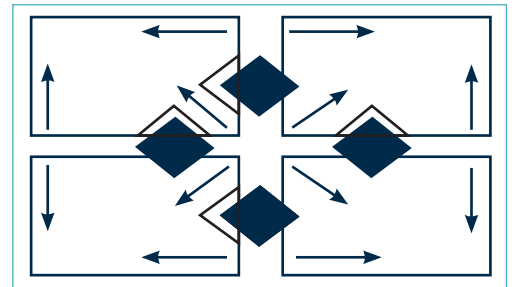
# Plate Dowels vs Round Dowels

Issue 1.4  
 4/11/2019

One-way movement and the resultant corner 'lock' leading to cracking.



Two-way lateral movement allows free contraction as the slab cures - no cracking.



## Load Transfer

Load transfer has been calculated based on a typical external floor slab which is a 200mm thick C32/40 slab with a joint opening of 20mm

The following values for various dowels were obtained

Type of dowel	Load Transfer (KN/m)	Spacing (mm)
DD6 Plate Dowel 6mm	57.9	450
DD10 Plate Dowel 10mm	60.2	450
TD10 Plate dowel 10mm	49.9	600
Square Dowel Bar	42	300
Round Dowel Bar 16mm	33.3	300
Round Dowel 20mm	42	300

Bar dowels are typically installed at 300mm centres. Due to the enhanced load transfer capabilities of Plate Dowels, fewer are needed and still higher load transfer values are achieved. Since fewer Plate Dowels are required, installation is quicker and costs are reduced.