LESA DOMINATOR PLATE DOWEL SYSTEM

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The Dominator 75/10 plate dowel is the most advanced in plate dowel design, and has the following features:

- A constant width steel plate, and
- A tapered sleeve.

The width and thickness of the Dominator plate dowel have been selected for:

- High bearing capacity (but not excessive bearing capacity) in narrow joint widths,
- High bending capacity for a range of joint widths, and
- Tapered dowel sleeve to allow increasing lateral movement as the joint width increases.

A tapered dowel plate is not used since a tapered plate would rapidly reduce the dowel capacity as the joint width increases.

DOMINATOR PLATE DOWEL VS. TYPICAL PLATE DOWEL

Graph: Load (kN) vs Joint Width (mm)
- Dominator plate dowel
- Typical 6mm plate dowel
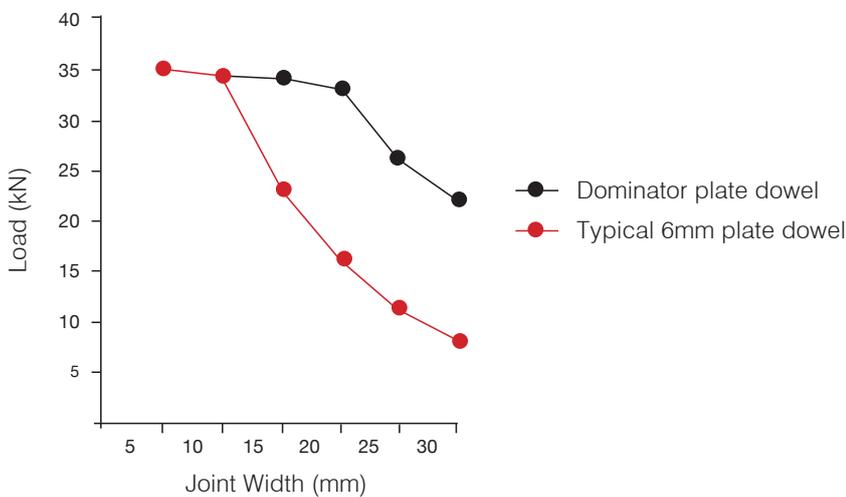
PLATE DOWEL SELECTION

Much of the concrete movement will be perpendicular to the line of the joint as the joint opens. However, some relative movement between the bays of concrete on each side of the joint will also occur along the line of the joint. It is vital that the dowels allow for this relative movement. If the dowels do not allow for this movement, then unnecessary stresses will develop in the slab, and these may contribute to cracking. With the range of floor construction techniques available, the selection of the dowels must suit the design of the floor, and adequately allow for slab movement, while still retaining adequate load capacity.

Feel free to contact us for any assistance in dowel selection.

LESA DOMINATOR PLATE DOWEL

Lesa Dominator plate dowel sleeve at spacing to suit slab thickness

Timber form

Fixing nails

Lesa Dominator plate dowel sleeve fix to centre of slab
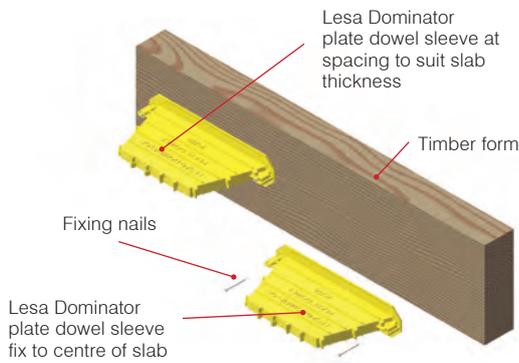
STEP 1: Mark the form for slab centre and Dominator plate dowel spacing. Using nails provided fix the Dominator dowel sleeve to the form.

NOTE: Ensure vibrator does not have contact with plastic sleeves.

Lesa Dominator plate dowel sleeve at spacing to suit slab design

Timber form

Lesa Dominator plate dowel sleeve fixed to centre of slab

First concrete pour
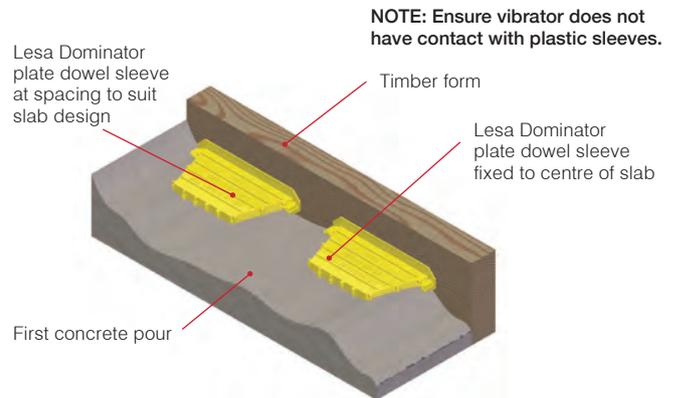
STEP 2: Set the form to line and level as normal. Place and finish concrete. Edge of slab must be vibrated to consolidate concrete around the Dominator sleeve.

Initial concrete pour

Lesa Dominator plate dowel sleeve at spacing to suit slab design

Lesa Dominator dowel plate
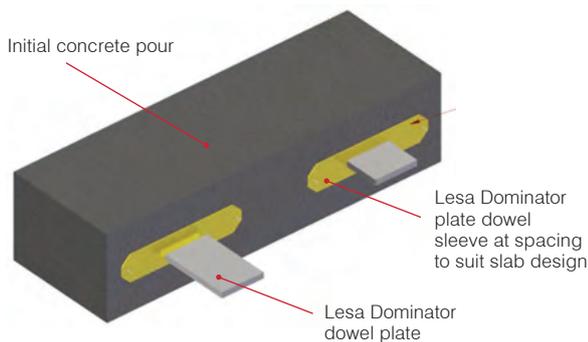
STEP 3: Strip the form. Forms should be cleaned and stored for reuse. Insert the 75/10 plate dowel when required prior to concrete pour.

Specified spacing

Embedded Lesa Dominator dowel sleeve creates slot to receive 75/10 dowel
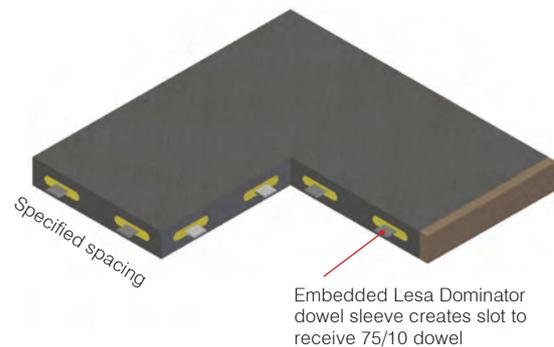
STEP 4: Pours proceed after plate installation.

Construction Joint

Lesa Dominator plate dowels provide lateral movement and load transfer performance