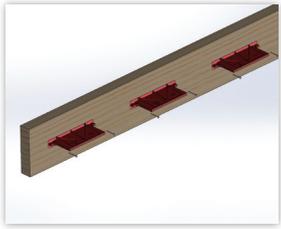
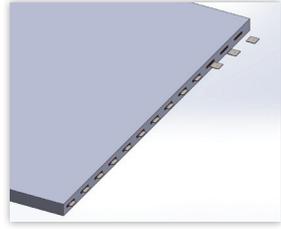


ISEDIO UNIDOWEL® AND UNISLEEVE®

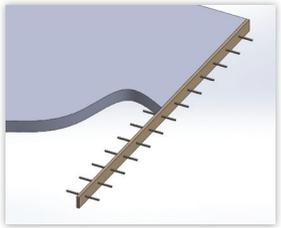


Nail **UNISLEEVES®** onto timber formwork, cast concrete.

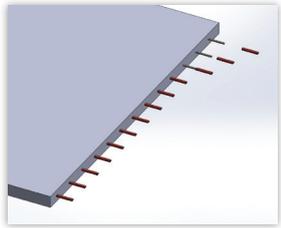


Remove timber formwork and fit **UNIDOWELS®**.

ISEDIO SQUARE DOWEL BAR AND SLEEVE

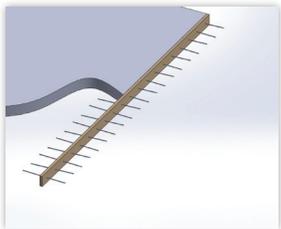


Drill oversized holes in timber formwork, fit square dowel bars, cast concrete.

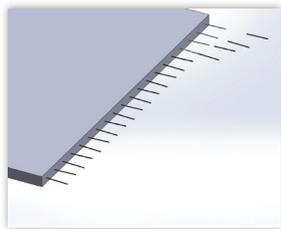


Remove timber formwork, fit square dowel bar sleeves.

ROUND DOWEL BAR AND SLEEVE



Drill oversized holes in timber formwork, fit round dowel bars, cast concrete.



Remove timber formwork, bending dowels to straighten if required, fit round dowel bar sleeves.

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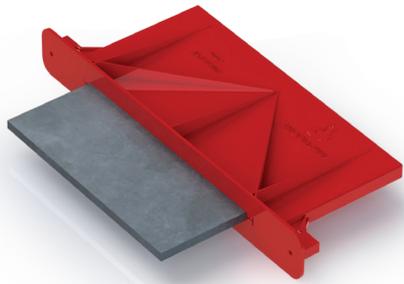
 **ISEDIO®**
THE COMPETITIVE EDGE
IN CONCRETE FLOORING

**NOT ALL
DOWELS
ARE
CREATED
EQUAL**

 **ISEDIO®**
THE COMPETITIVE EDGE
IN CONCRETE FLOORING

ISEDIO UNIDOWEL® AND UNISLEEVE® ADVANTAGES

- ✓ Improved load transfer capacities compared with round dowel bars and square dowel bars.
- ✓ Sleeve design allows 20mm to 37mm lateral movement in both directions (depending on UNIDOWEL® size), 30mm maximum joint opening, with zero vertical movement.
- ✓ Typical spacing at 450mm centres (spacing should be determined by the Engineer).
- ✓ Wider spacing means fewer dowels are required, reducing costs of materials and installation time.
- ✓ No drilling of timber required, just nail UNISLEEVE® onto timber.
- ✓ Certainty that sleeve will remain horizontal during casting process, so no misaligned dowels.
- ✓ Timber formwork simply pulls away from embedded sleeve/concrete face with no snagging.
- ✓ Less of a trip hazard as no dowels protrude during casting of first slab panel.



UNIDOWEL® is available in two sizes:

115mm x 115mm x 6mm
150mm x 150mm x 6mm

Can also be supplied as
galvanised or stainless steel.

ISEDIO SQUARE DOWEL BAR AND SLEEVE ADVANTAGES

- ✓ Improved load transfer capacities compared with round dowel bars.
- ✓ Sleeve design allows 10mm lateral movement in both directions with zero vertical movement.
- ✓ Typical spacing at 300mm centres (spacing should be determined by the Engineer).
- ✓ Easier to release from timber formwork as the dowels tend to stay in a horizontal plane through the timber formwork due to their shape.



ROUND DOWEL BAR AND SLEEVE DISADVANTAGES

- ✗ Inferior bending and shear capacities compared to other square dowel bar and square plate dowel systems.
- ✗ Sleeve design does not allow for any lateral movement when concrete contraction begins. Therefore slab is restrained other than perpendicular movement, which induces stress into the concrete, leading to cracking.
- ✗ The protruding length of round dowels can be a health and safety trip hazard and dowels can easily be deformed or misaligned.
- ✗ Opportunity for vertical tilt and horizontal skew of a round dowel bar during installation and concrete casting may restrain slab movement or cause slab lock up, increase stresses, which in turn, can cause slab cracking and spalling.
- ✗ Oversized drilled holes and soft resin mortar compound can make dowel alignment problematic causing dowels to skew.
- ✗ Round dowels are usually awkward to release from timber formwork as they can snag. A releasing agent is also required to help this process.
- ✗ Narrower dowel spacing is required due to inferior load transfer capacities.



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