



DANLEY™

Load Transfer System

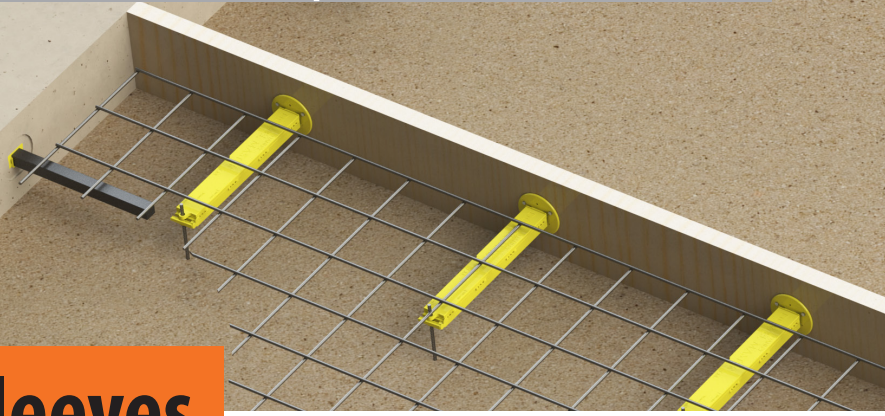
Dowelmaster™

Sleeves

Product Guide

Ideal for construction joints in ground slabs &
are available in **16mm**, **20mm** and **25mm** sizes

Refer to the back of this
product guide for contact information.



Dowelmaster™ Sleeves

Product Description

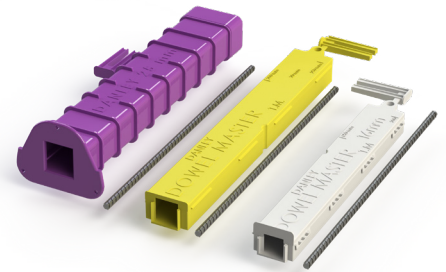
Dowelmaster™ sleeves are multi-directional plastic sleeves suitable for high capacity square dowels. They allow for contraction at the joint, as well as having a small amount of lateral movement and expansion capacity.

They are ideal for construction joints in ground slabs and are available in 16mm, 20mm and 25mm standard sizes. The 16mm and 20mm Dowelmaster™ sleeves nail to wooden form boards (with optional nailing plate) or attach directly to Danley Keyjoint. The sleeves are supported at the rear by a stake and wedge system eliminating the need for bar chairs.

The 25mm Dowelmaster™ sleeves have a built in nailing flange. They have a separate extension length which can be purchased to allow the sleeve to suit longer dowel lengths.

Features & Benefits

- Available for 16mm, 20mm and 25mm square dowels.
- 16mm Sleeve suits 400mm dowel length.
- 20mm and 25mm suits 500mm dowel length.
- Prevents slab lock-up.
- Sleeves provide both lateral movement and expansion capacity.
- Simple to install.
- No need to drill forms to support dowels during the concrete pour.
- Separate nailing plate for wooden form boards sold separately.
- Supplied with fixing stake and wedge for rear support.
- Compatible with Danley Keyjoint, attach directly in 16mm and 20mm sizes.
- An extension for the 25mm Dowelmaster™ which allows it to suit longer dowels can be purchased separately.

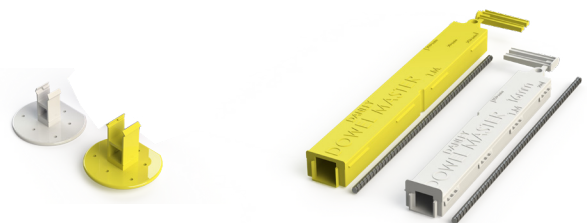


Dowelmaster™ is made for Industrial, Commercial & Civil flooring applications, Concrete slab-on-ground roadways & pavements.



How to Specify

Specify: Danley™ Square Dowel (*dowel size*) x (*dowel length*) x (*dowel spacing*) (*dowel material*) with Dowelmaster™ sleeve (*and nailing plate*)
e.g. Danley™ Square Dowel **20mm** x **400mm** at **450mm centres**, **galvanised** with 20mm Dowelmaster™ sleeve **and nailing plate**



Installation

Dowelmaster™ Sleeves

Installation Instructions

Note:

1. The project drawings will have specified the dowel spacing required.
2. Each Dowelmaster™ Nailing Plate has a flat portion across the flange to assist in positioning.

Step 1:

At one end of the formboard, mark a point equal to one half of slab thickness -32mm (e.g for 150 slab, mark the point $150/2 = 75 - 32 = 43\text{mm}$ down from the formboard. Repeat at other end of formboard. Join both marks with a tight string line. Mark position of the first dowel from the end of formboard, then mark the position of subsequent dowels along the string line. Place the first Nailing Plate at the first position and nail in place - 2 nails diagonally opposite each other should be adequate. Locate and nail in place subsequent Nailing Plates (Fig 1)

Step 2:

Place the first Dowelmaster™ over the protruding tabs on the Nailing Plate (Fig 2), then push the sleeve firmly against the back face of the Nailing Plate (Fig 3). This will ensure wet concrete does not seep into the sleeve.

Step 3:

Insert the adjustable stake through the hole in the end of the first Dowelmaster™ sleeve and hammer it into the ground making sure it is secure (Fig 4). Break the wedge off the sleeve. Accurately level the sleeve and hold in place by inserting the wedge between the stake and the back end of the sleeve (Fig 5). Repeat at last Dowelmaster™ sleeve along the formboard.

Step 4:

Hammer a stake in at both ends of the formwork and run a string line across the entire length of the joint (Fig 6). Once you have the string line to the correct height you can adjust all of the remaining Dowelmaster™ sleeves to the correct height and again lock them into place with stakes and wedges (Fig 7)

Dowelmaster sleeves must be placed on the first-pour side of the formboard. After the concrete has cured, remove the formwork and the Nailing Plates and insert the appropriate Danley™ Square Dowels into the Dowelmaster™ sleeves before the second concrete pour is made.

Available Sizes

Product Code	Description
DWLSQMAS16X210	Dowelmaster Square 16mm WHT 150-200mm WITH Stake 01000
DWLSQMAS20X260	Dowelmaster Square 20mm YEL 200-250mm WITH Stake 01050
DWLSQMAS25X250*	Dowelmaster Square 25mm PUR 200-250mm Stake & Nail Plate
DWLSQMASNL16	Dowelmaster Nail Plate 16mm Nail Plate 16mm 100pce
DWLSQMASNL20	Dowelmaster Nail Plate 20mm Nail Plate 20mm 100pce

*Not available in New Zealand

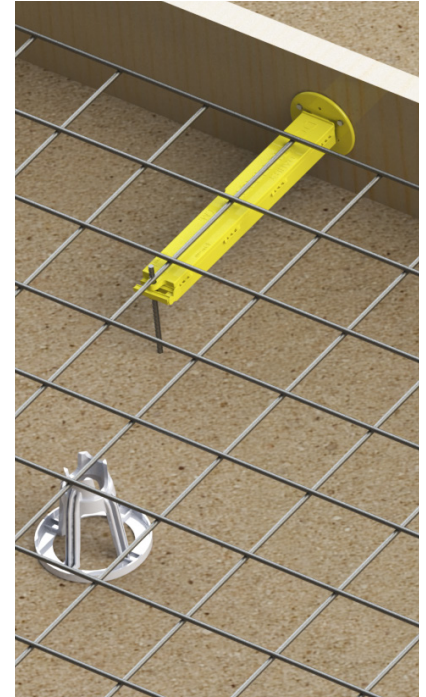


Fig 1-3






Fig 4-7

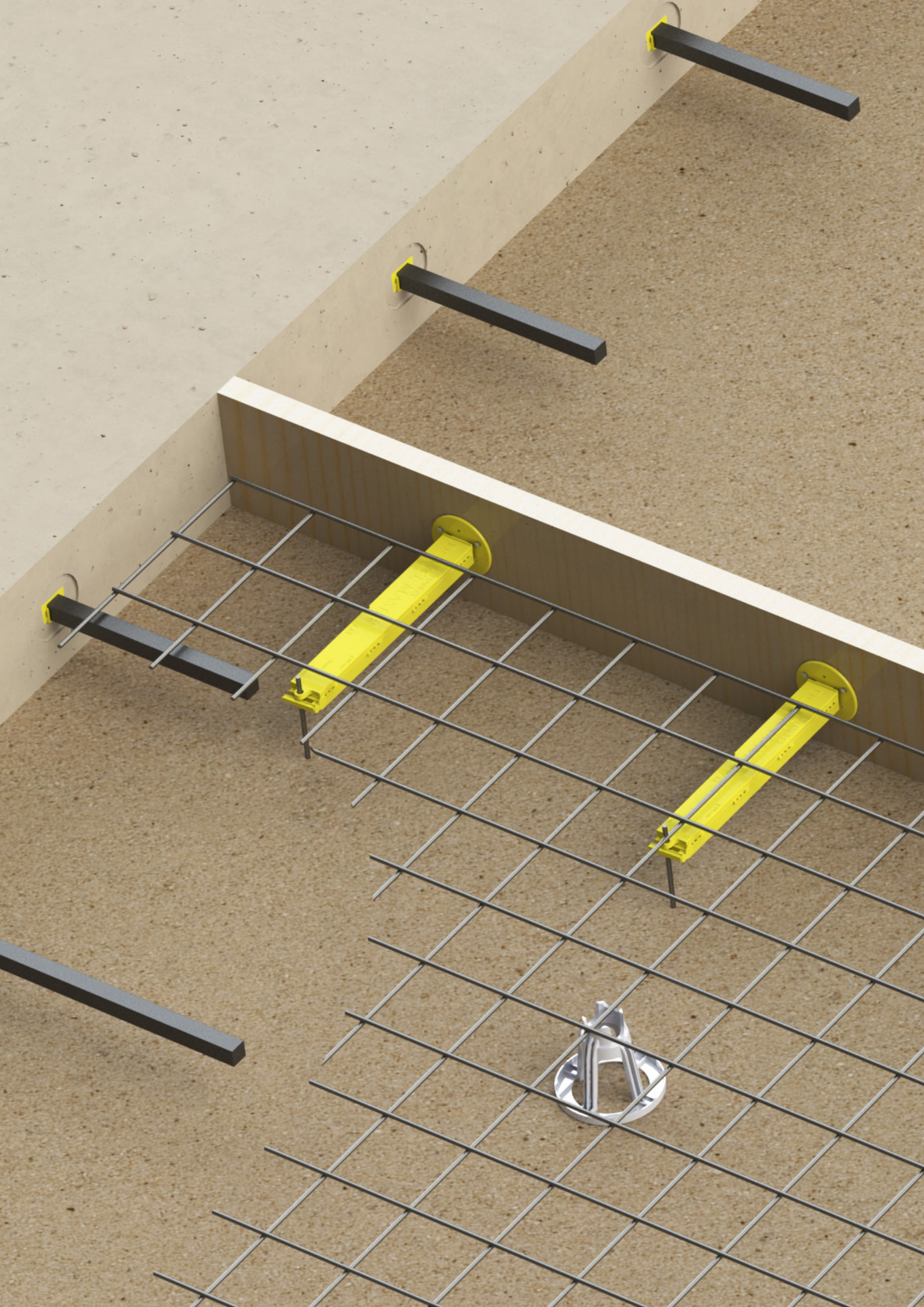
Product Compliance

Compliance statement

Danley™ Dowelmaster™ Sleeves comply with the New Zealand Building Code clauses identified below.

Compliance details: NZBC

NZBC Clause	Criteria	Compliance Status
B1.3.1	'Buildings, building elements and sitework shall have a low probability of rupturing, becoming unstable, losing equilibrium, or collapsing during construction or alteration and throughout their lives.'	
B1.3.2	'Buildings, building elements and sitework shall have a low probability of causing loss of amenity through undue deformation, vibratory response, degradation, or other physical characteristics throughout their lives, or during construction or alteration when the building is in use.'	
B1.3.3 (a), (b), (d), (e), (f), (g), (h), (j), (q)	'Account shall be taken of all physical conditions likely to affect the stability of buildings, building elements and sitework, including: (a) Self weight, (b) Imposed gravity loads arising from use . . . (d) Earth pressure, (e) Water and other liquids, (f) Earthquake, (g) Snow, (h) Wind . . . (j) Impact . . . (q) Time dependent effects including creep and shrinkage.'	
B1.3.4	'Due allowance shall be made for: (a) The consequences of failure, (b) The intended use of the building, (c) Effects of uncertainties resulting from construction activities, or the sequence in which construction activities occur, (d) Variation in the properties of materials and the characteristics of the site, and (e) Accuracy limitations inherent in the methods used to predict the stability of buildings.'	
B2.3.1 (a)	'Building elements must, with only normal maintenance, continue to satisfy the performance requirements of this code for the lesser of the specified intended life of the building, if stated, or: (a) The life of the building, being not less than 50 years, if (i) Those building elements . . . Provide structural stability to the building, or (ii) Those building elements are difficult to access or replace, or (iii) Failure of those building elements to comply with the building code would go undetected during both normal use and maintenance of the building.'	
F2.3.1	'The quantities of gas, liquid, radiation or solid particles emitted by materials used in the construction of buildings, shall not give rise to harmful concentrations at the surface of the material where the material is exposed, or in the atmosphere of any space.'	





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