

## Dowel cradle systems for concrete slabs and pavements

### Uses

Most suited to large concrete pours particularly when laser screed techniques are used. Cradles are designed for use along contraction joints, together with the base crack inducer and a surface saw-cut provide the optimal contraction joint.

Dowel Cradles supplied with round, square, rectangular or tapered plate dowels at centres selected by the engineer and can be plastic-wrapped or fitted with covers to cater for lateral movement and concrete shrinkage.

### Advantages

- Available heights to suit slabs 100 mm to 300 mm thick
- Ideal for sawn contraction joints
- Supplied in 3 m lengths for rapid installation
- Simple installation – no bar chairs required
- Minimises set up time

### Description

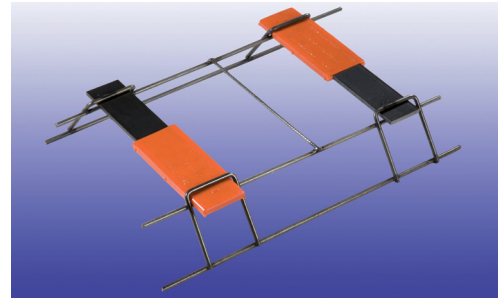
Dowel Cradles are a prefabricated welded cage designed to hold dowels in exact horizontal alignment at the correct level within the concrete slab. Available in three styles to suit the type of dowel being used. All cradles are fully welded and prefabricated in 3 m lengths to suit slab thicknesses from 100 mm to 300 mm.

**Round Dowel Cradles** incorporate shrink wrapped round dowels in black, galvanised and stainless steel. Round Dowel Cradles are available as a special order.

**Square Dowel Cradles** incorporate square dowels and either Dowelmaster or Metal Dowel Covers. Available in 16, 20, 25 mm dowel sizes in black, galvanised and stainless steel.

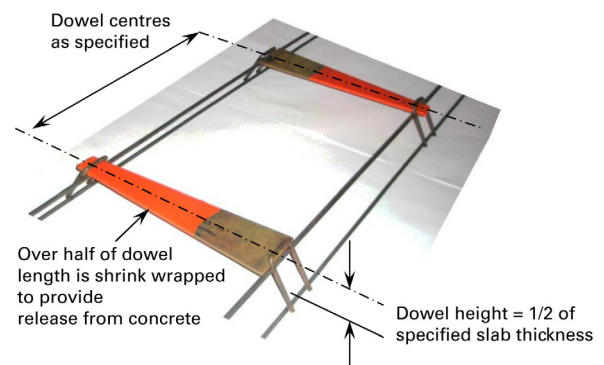


**Plate Dowel Cradles** are the most efficient system by limiting differential deformation between slabs. Plate Dowels are secured in the fabricated cradle and are well suited for contraction joints where high load capacities are required. Available in 6 or 10 mm plate sizes in black, galvanised and stainless steel, sleeves are colour coded: 6 mm are orange and 10 mm are blue.



**PD3 Dowels™** are tapered plate dowels assembled into cradles of 3 m nominal length. They are available with either 6 mm and 10 mm thick dowels spaced at 450 mm or 600 mm centres, and for slab thicknesses ranging from 150 mm to 300 mm. The tapered plate dowels are 300 mm long and are made from AS/NZS 3679.1 Grade 300 steel.

**PD3 Dowels™** have the same load transfer capacities and deflection characteristics as rectangular Plate Dowel Cradles™.



### Installation Instructions

Mark position of contraction joint with string line or a paint line on the sub-grade (or on top of poly sheet if used). If Ground Crack Inducer is to be used, place this directly over the marked line, then place first Dowel Cradle centrally over the marked line. Place second Dowel Cradle over marked line, spacing the first dowel of the second cradle from the last dowel on the first cradle an equal distance to the dowel spacing on the cradles. Place subsequent cradles similarly.

Once cradle is correctly positioned, cut the cross restraints to allow independent movements of the two cradle halves contained within the adjacent concrete slabs.

Install slab reinforcement mesh (if specified) as directed by the slab designer. Pour concrete as usual ensuring concrete placement and minimum reinforcement coverage is achieved as per slab design. Note: When placing concrete, care should be taken not to move the cradles, nor stand on them.

Install Crack-A-Joint or saw cut the contraction joint as directed.

# Dowel Cradles

## Supply

### Square Dowel Cradles (these are made to order)

Product Code	Dowel Size [mm]	Dowel Length [mm]	Dowel Centres [mm]	Cradle Weight [kg]
DCS16X400X300	16	400	300	9.2
DCS16X400X450	16	400	450	9.9
DCS16X400X600	16	400	600	10.6
DCS20X400X300	20	400	300	12.4
DCS20X400X450	20	400	450	13.5
DCS20X400X600	20	400	600	14.6

### Notes:

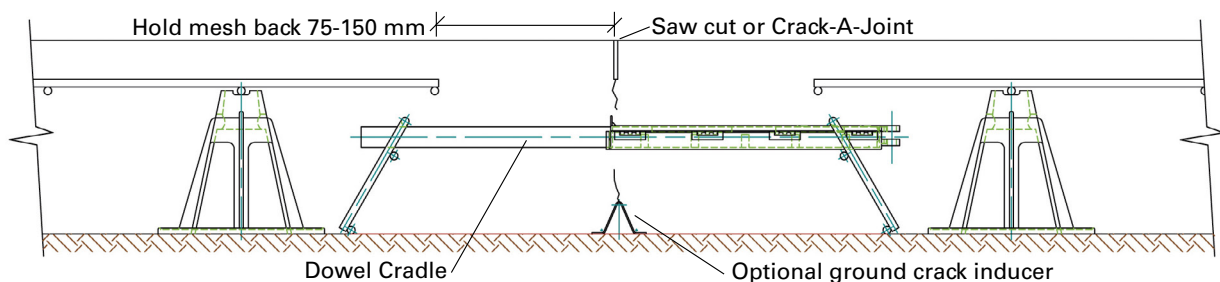
1. Square Dowel Cradles are fitted with Dowelmaster sleeves as standard
2. Thickness of slab MUST be specified
3. For galvanised dowels add 'G' (to product code) e.g. DCS16x400x300G
4. Supplied in 3 m lengths

### Commonly available Plate Dowel Cradles

Product Code	Dowel Size [mm]	Dowel Spacing [mm]	Slab Thickness [mm]	Cradle Weight [kg]
DCP6450125	6 X 50	450	125	8.4
DCP6450150	6 X 50	450	150	8.5
DCP6450175	6 X 50	450	175	8.6
DCP6450200	6 X 50	450	200	8.7
DCP10450175	10 X 50	450	175	11.8
DCP10450200	10 X 50	450	200	11.9
DCP10450250	10 X 50	450	250	12.1
DCP10500200	10 X 50	500	200	10.7
DCP10600150	10 X 50	600	150	9.4
DCP10600200	10 X 50	600	200	9.5

### Notes:

1. For galvanised dowels add 'G' (to product code) e.g. DCP16450125G
2. Round bar dowel cradles are available as a special order



# Dowel Cradles

## Dowel Bars

A range of dowel bars are available in round or square, black or galvanised. Please contact your nearest Parchem office for details.

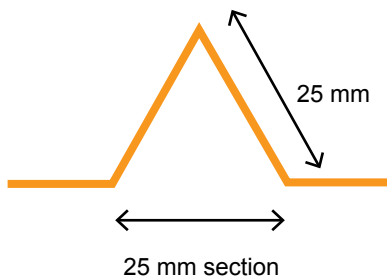
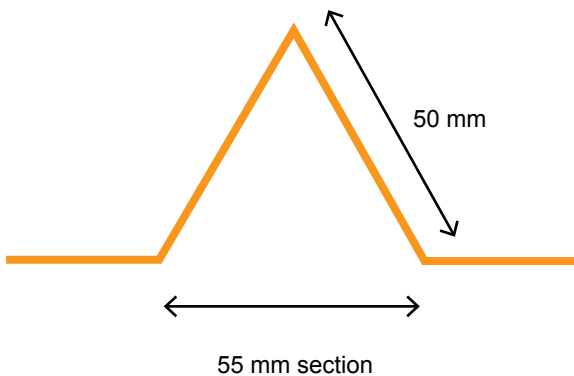
## Ground Crack Inducer

An inverted V-shaped PVC extrusion 3 m long available in 25 and 50 mm heights, it is positioned on the sub-grade before the Plate Dowel Cradles or Square Dowel Cradles are placed. Produces a weakening in the slab that initiates a crack in the slab from the bottom up. Ground Crack Inducer should only be used when Crack-A-Joint is used, or when saw cuts are to be made in the slab on the same day as the slab is poured.

## Supply

3 m x 150 (25 mm high)

3 m x 250 (55 mm high)



Square Dowel Cradles (with optional ground crack inducer under) set up prior to pouring concrete.



Cutting cross wires once cradle is correctly positioned.

## Important notice

A Safety Data Sheet (SDS) and Technical Data Sheet (TDS) are available from the Parchem website or upon request from the nearest Parchem sales office. Read the SDS and TDS carefully prior to use as application or performance data may change from time to time. In emergency, contact any Poisons Information Centre (phone 13 11 26 within Australia) or a doctor for advice.

## Product disclaimer

This Technical Data Sheet (TDS) summarises our best knowledge of the product, including how to use and apply the product based on the information available at the time. You should read this TDS carefully and consider the information in the context of how the product will be used, including in conjunction with any other product and the type of surfaces to, and the manner in which, the product will be applied. Our responsibility for products sold is subject to our standard terms and conditions of sale. Parchem does not accept any liability either directly or indirectly for any losses suffered in connection with the use or application of the product whether or not in accordance with any advice, specification, recommendation or information given by it.