Danley™ Hyper Xtend™

Edge Protection System

Technical Data Sheet

June 2020

Product Description

Hyper ArmourMate™ is a premium armour edging solution and is designed for applications where the concrete edge and wear surface must withstand materials handling traffic with small hard-wheels carrying high-loads on a daily basis, in particular semi-automated and automated materials handling environments.

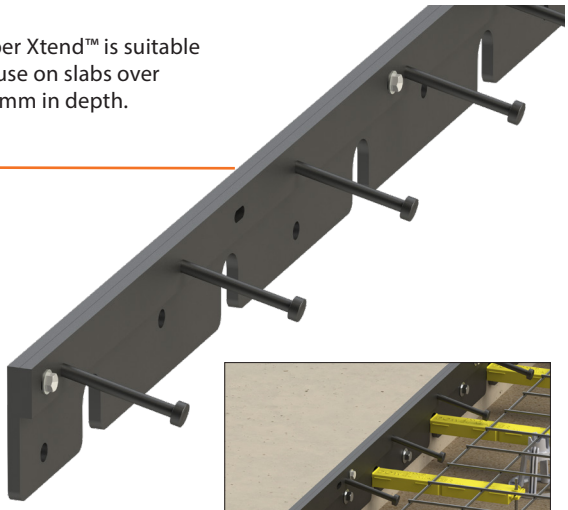
The ArmourMate™ **Hyper Xtend™ Top Rail System** is used for the repair of joints in aged slabs, or extending existing concrete elements to newly poured sections. Suitable environments may include:

- **Industrial Floors**
- **Ports & Container Yards**
- **Hardstand Connections**
- **Freight and Transport Facilities**

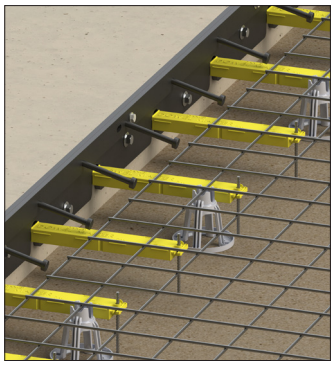
Available in standard 3 metre lengths, Hyper Xtend™ is designed for use in slabs over 150mm in depth, utilising Danley™ DowelMaster™ with 16mm, 20mm or 25mm saw cut square dowels. For slabs requiring high movement joints (up to 20mm), Hyper Xtend™ is also compatible for use with Danley™ Flanged Dowel Box Sleeve Kits. All dowels and sleeves are sold separately.

Note: For additional information regarding the specification and installation of Hyper Xtend™ please consult our Danley™ Engineering Team.

Hyper Xtend™ is suitable for use on slabs over 150mm in depth.



Hyper Xtend™ is also compatible for use with:



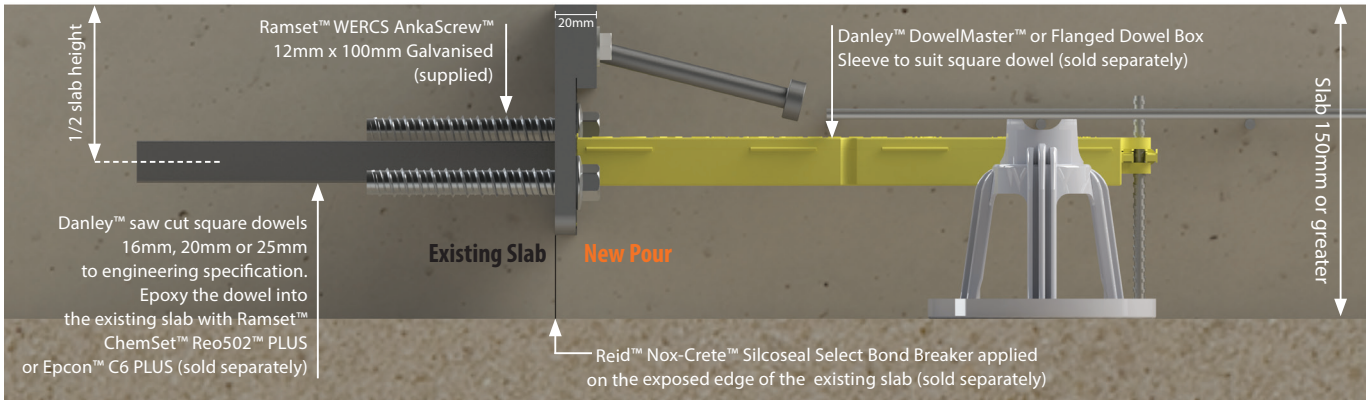
Hyper Xtend™ Product Specification

- Supplied in 3 metre lengths. Product Weight: 35kg
- Steel Top Rail - available in Black or Galvanised
- Exposed Edge: 2 sections x 10mm wide
- 100mm x 10mm Cold Drawn steel shear studs
- Pre-cut dowel slots for 300mm or 600mm centres
- Supplied with 12mm x 100mm Galvanised Ramset™ AnkaScrews™

Danley™ Hyper Xtend™ is used for the repair of joints in aged slabs, or extending existing concrete elements to newly poured sections.

Hyper Xtend™ Typical Detail

AMHYPXTDB - Hyper Xtend™ Kit (Black)
AMHYPXTDG - Hyper Xtend™ Kit (Galvanised)



Need more information? Contact the Danley™ Customer Service Team.

AUS: 1300 326 539 | **NZ:** 0800 88 22 55 | **E:** sales@danley.com.au | **W:** www.danley.com.au

Installation Guideline

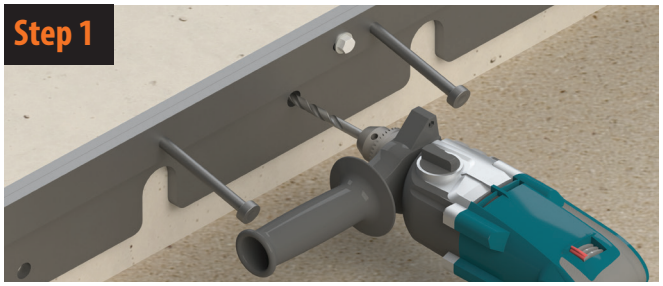
Hyper Xtend™

Ramset™ ChemSet™ Reo502™ PLUS TDS

Epcon™ C6 PLUS TDS

Ramset™ WERCS™ AnkaScrew™ TDS

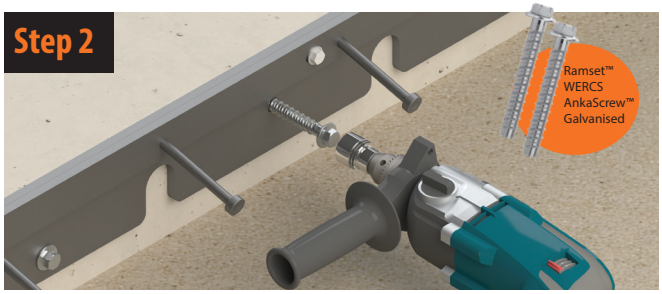
Step 1



Slab Preparation: Prior to the installation of Hyper Xtend™ ensure the existing slab edge is straight and flat. The working surface of the slab should be free debris & contaminants.

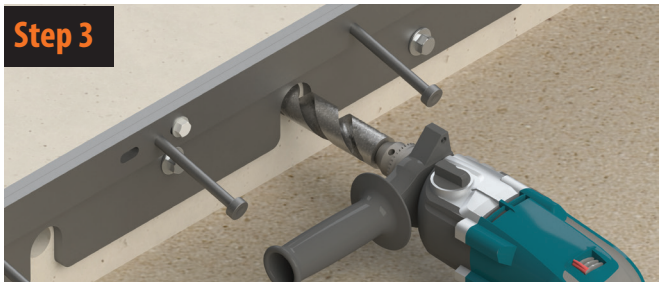
Position Hyper Xtend™ level with the top edge of the existing slab. Using a 12mm masonry drill bit in the pre-cut punched holes of Hyper Xtend™, drill a hole in the slab to a minimum depth of 94mm. Use a dustless bit, or remove the debris with a hand pump, compressed air, or a vacuum.

Step 2



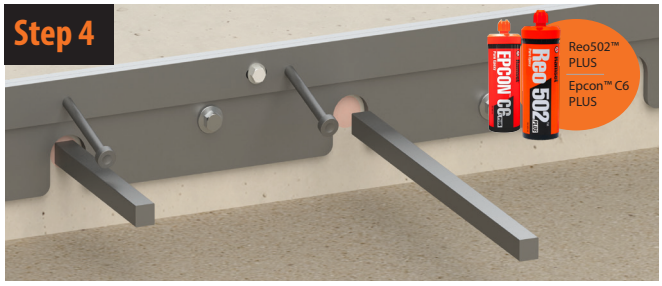
Insert the provided Ramset™ WERCS AnkaScrew™ through the Hyper Xtend™ and using a 16mm diameter socket, screw it into the hole with with a socket wrench or an impact wrench (pictured). Use slight pressure until the self-tapping action begins. Tighten the Ramset™ WERCS AnkaScrew™ until the Hyper Xtend™ is held firm against the slab edge. Ensure you **do not** over tighten. Repeat the process along the slab edge until the Hyper Xtend™ is fixed in position.

Step 3



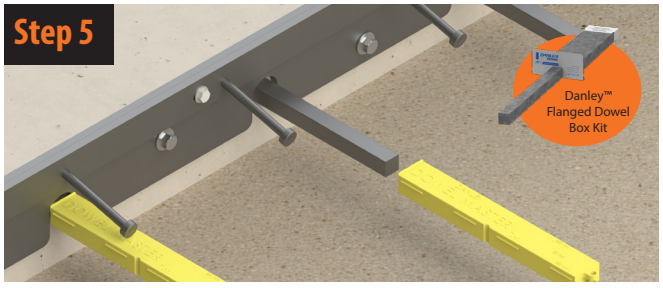
Using a Ramset™ D3 Dustless Carbide drill bit, or Ramset™ U3™ & R3™ Max Multi-Cutter Carbide drill bit, core a hole for the square dowel at the specified centres. Ensure the holes are cored at 1/2 the slab height. All drilled holes should be free of dust, debris and other contaminants.
16mm x 400mm square dowels will require a **24mm** diameter hole, 200mm in depth
20mm x 400mm square dowels will require a **30mm** diameter hole, 200mm in depth
25mm x 400mm square dowels will require a **38mm** diameter hole, 200mm in depth

Step 4



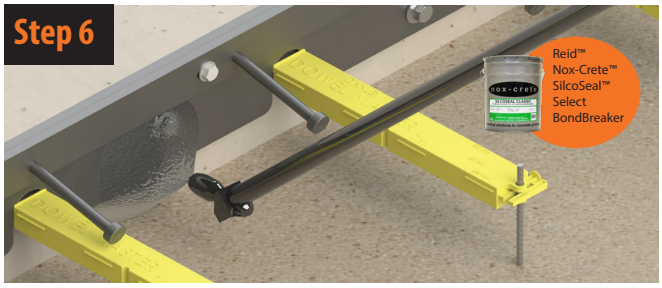
Refer to the Ramset™ ChemSet™ Reo502™ PLUS or the Epcon™ C6 PLUS Technical Data Sheets for the full application and installation guidelines.
Insert **40ml** of Reo502™/Epcon™ C6 into 24mm diameter holes (for 16mm x 400mm sq. dowels)
Insert **62ml** of Reo502™/Epcon™ C6 into 30mm diameter holes (for 20mm x 400mm sq. dowels)
Insert **102ml** of Reo502™/Epcon™ C6 into 38mm diameter holes (for 25mm x 400mm sq. dowels)
Install the dowels so they are at right angles and level in all directions.

Step 5



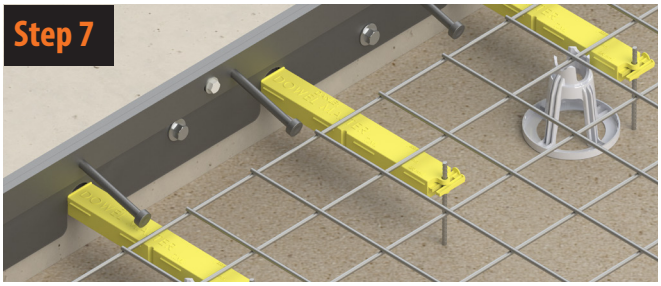
With dowels in position and Reo502™/Epcon™ C6 fully cured to specifier's recommendations, insert Danley™ DowelMaster™ or Flanged Dowel Box Sleeves (pictured inset) over the dowels.

Step 6



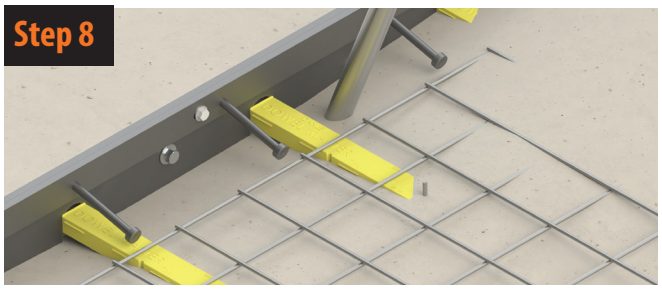
Application of bondbreaker: It is **critical** to ensure that a bondbreaker is used. We recommend the use of Reid™ Nox-Crete™ SilcoSeal Select BondBreaker. Ensure bondbreaker is applied to the exposed concrete face of the existing slab to prevent bonding with the newly poured section.
For more information, refer to the Reid™ SilcoSeal™ Select Technical Data Sheet.

Step 7



Place reinforcing mesh in accordance to engineering specification. Ensure that the mesh is not resting on either the dowels or shear studs. Mesh should be supported by Danley™ plastic bar chairs. All Danley™ plastic chairs & spacers comply with the requirements of AS/NZS 2425:2015.

Step 8



Place the concrete. The edge of the slab must be vibrated to ensure adequate consolidation and compaction of concrete around the Hyper Xtend™ shear studs and dowel sleeves.
Avoid contacting the sleeve with the vibrator shaft. Finish concrete to the project specification.

Need more information? Contact the Danley™ Customer Service Team.
AUS: 1300 326 539 | **NZ:** 0800 88 22 55 | **E:** sales@danley.com.au | **W:** www.danley.com.au