



# R∈id™ Lifting Plate





# Reid™ 5LP Lifting Plate



Reid SLP Lifting Plates are typically used in instances where a lifting anchor has been overlooked or missing. It must be used where the load direction is aligned with the cleat and minimal side load is applied.



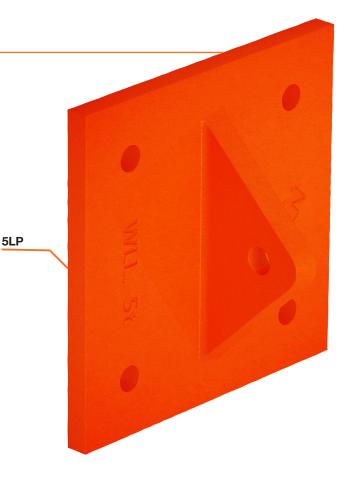
Figure I:



Reid™ 5LP Lifting Plate

#### Reid™ 5LP Lifting Plate Key Features:

- Designed for use where a lifting anchor has been omitted or installed incorrectly in a concrete panel.
- Suitable for use with thicknesses of 150mm and above.
- 5 tonne WLL
- Manufactured in accordance with AS 3850.1:2024
- Made in Australia
- NATA Proof Load Certificate





## Compliance Details

Table I: AS 3850.I:2024 Compliance Details

| Clause number | Requirement   | Compliant  |
|---------------|---|------------|
| 2.2           | The Working Load Limit has been determined by testing in accordance with Appendix A, using a FOS per Table 2.1.   | $\bigcirc$ |
|               | WLL determined in accordance with clause 2.2.   | $\odot$    |
|               | Manufactured from ductile materials.  | $\bigcirc$ |
| 2.6           | When loaded to ultimate failure, failure shall occur in a ductile manner away from any weld zones, with evidence of distortion and plastic deformation and all fracture faces shall exhibit ductile failure mechanisms. | $\odot$    |
|               | Each clutch shall be proof-tested, certified and uniquely identified.   | $\bigcirc$ |
|               | Each clutch shall be permanently marked with a unique identifier (traceable to the proof tests), the manufacturers symbol or name and the WLL or compatible anchor identifier.  | $\odot$    |
| <b>A</b> 3    | Testing and recording of results.   | $\bigcirc$ |
| <b>A</b> 4    | Statistical evaluation of test results, using formula A4, $X_k = x(1-k_sCOV)$ .   | $\bigcirc$ |
| <b>A</b> 5    | Production Validation through testing to confirm compliance of critical speciation requirements (dimensions, material properties and load bearing capacity where appropriate).  | $\bigcirc$ |
| <b>A</b> 8    | During design validation, clutches shall be tensile tested to determine Ru.   | $\bigcirc$ |
|               | Each clutch shall be proof tested in accordance with clause 2.6.  | $\bigcirc$ |
|               | Tensile testing shall be in accordance with A8.2.3.   | $\bigcirc$ |

Reid™ 5LP Lifting Plate AS 3850.I:2024 Compliant







# Product Specification



#### Reid 5LP Lifting Plates are typically used in instances where a lifting anchor has been overlooked or is missing.

The Reid Lifting Plate must only be used where the load direction is aligned with the cleat and minimal side load is applied.



#### The Reid 5LP Lifting Plate 4x BraceSet™

(Product Code: BA20115) for installation into concrete.



Go to www.reid.com.au for a copy of the BraceSet AS3850.1:2024 compliance document.

anchors.

#### or 4x SpaTec™ Xtrem™ anchors

(Product Code: SP12120) for installation into concrete.



Go to www.ramset.com.au for a copy of the SpaTec<sup>™</sup> Xtrem<sup>™</sup> Safety Anchors product information document.

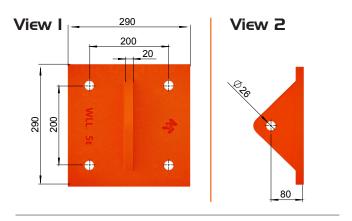
## The Reid 5LP Lifting Plate is marked with its rated Working Load Limit – 5T.

The Working Load Limit of 5t @20 MPa applies when positioned away from an edge, and when the lift design is certified by the Reid™ Engineering department.

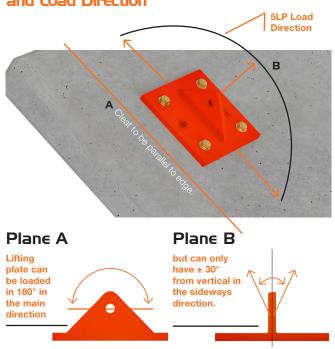
#### Please note:

- The Working Load Limit is for use in face-lift type inplane lifts where the plate has minimal side loads.
- The 5LP Lifting Plate is required to be proof-loaded on an annual basis.

#### Product Specification - 5LP Dimensions (mm)



### Product Specification - 5LP Cleat Position and Load Direction







# Installation (with post-installation QA check)

#### Table 2: Lifting Plate Product Code

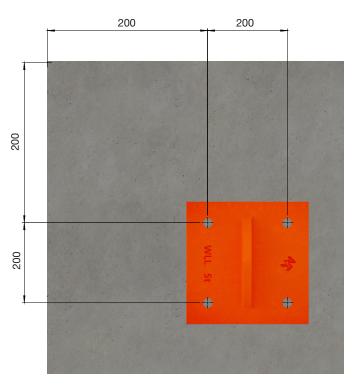
| Product Code | Description                | Capacity |
|--------------|----------------------------|----------|
| 5LP          | 5 tonne Reid Lifting Plate | 5 Tonne  |

#### Please note:

Requires 4x BraceSet™ anchors (Product Code: BA20115) or 4x SpaTec™ Xtrem™ Safety Anchors (Product Code: SP12120) installed as per the installation procedure illustrated further in this Compliance Document.

#### Product Specification -

#### Minimum edge distances



#### Please note:

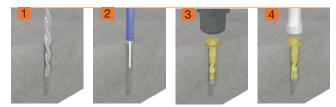
It is critical that there is 200mm minimum edge distances for the 5LP.

#### Installation Specification

| Anchor          | Part No. | Drill Hole Diam-<br>eter (mm) | Hole Depth<br>(mm) | Set up Torque<br>(Nm) | Min. Edge Dis-<br>tance (mm) | Min. Distance<br>to Another Plate<br>(mm) | Min. Concrete<br>Strength (MPa) |
|-----------------|----------|-------------------------------|--------------------|-----------------------|------------------------------|---|---------------------------------|
| BraceSet        | BA20115  | 20                            | 114                | 150                   | 200                          | 750*                                      | >20**                           |
| SpaTec<br>Xtrem | SP12120  | 18                            | 116**              | 80                    | 200                          | 750*                                      | >20**                           |

\*750mm or as specified by the Reid™ Engineering department.

I. Centralise the SLP at proposed lifting point with lifting eye parallel to lifting direction, with specified minimum distances from concrete edge and another plate.



- 2. Drill one hole for each corner with nominated diameter and depth.
- 3. Blow/Vacuum dust from the hole.
- 4. Position and drive the anchor with mash hammer into hole untill it makes contact with the lifting plate.
- **5.** Tighten the anchor bolts with a calibrated torque wrench to the nominated assembly torque\*.

\*Use calibrated torque wrench only, in accordance with AS 3850.1:2024, clause 5.1.2.

Note: If reinforcing is struck and the required depth cannot be achieved, please follow the Aborted Hole Process on page 6.



<sup>\*\*</sup>Ensure that the minimum concrete strength achieved is more than 20MPa



## Aborted Hole Process:

### If reinforcing is struck and the required depth cannot be achieved, the following process shall be followed:

Case 1 - for 5LP Lifting Plates subject to rotation experiencing shear applied parallel to eye plate

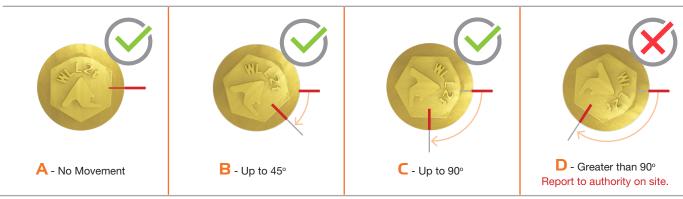
- 1. Aborted hole must be filled with high strength grout/mortar. Grout/mortar strength should be equivalent or greater than concrete strength at time of lift.
- 2. Lifting Plate shall be relocated 100mm in any direction from original position (maintaining the minimum edge distances) and redrill the holes.

Case 2 - for Lifting Plates subject to one direction shear (e.g. tilt-up panels being lifted with spreader beams)

- 1. Aborted hole may be discarded provided it is not in direct line of the lifting load. If unsure, always fill aborted hole with high strength grout/mortar.
- 2. Lifting Plate shall be relocated 100mm to the left or right side from original position (maintaining the minimum edge distances) and redrill
- Note 1: Where required all aborted holes must be filled with high strength grout/mortar.
- Note 2: Where aborted holes are filled, the aged strength of grout/mortar shall be at least the strength of the concrete at time of lift.

## Installation QA Check:

- Anchor bolts should be verified at least weekly and after major weather events to ensure they are secure, in accordance with AS 3850.2:2024
- 2. Check if a bolt head can be turned by hand and if it turns, report it immediately to the responsible authority on site.
- 3. After installation of anchors with nominated assembly torque, put an alignment reference marks on the bolt head and the surrounding surface.
- For BraceSet<sup>™</sup>, using a calibrated torque wrench, apply 100Nm torque in a clockwise direction. For SpaTex Xtrem<sup>™</sup>, using a calibrated torque wrench, apply 54Nm torque in a clockwise direction.
- 5. If any anchor bolt turns more than 90° from the reference mark, then report this immediately to the responsible authority on site.



- 6. Total accumulated rotation of any bolt head should not exceed 180° from the first reference mark and if it does, report immediately to the responsible authority on site.
- 7. Reid™ does not recommend retorquing to the initial installation torque of 150Nm for BraceSetT™, or 80Nm for SpaTec Xtrem™ anchors.



# Quality and Compliance

All Reid™ branded products and all products manufactured at our Melbourne manufacturing facility are designed, manufactured, tested and supplied in compliance with our Quality Management System which has been independently audited and certified by SAI Global to ISO 9001:2015. Reid™ undertake strict quality control processes to ensure performance specifications and metallurgical properties are maintained.

To reflect the continued progress of the industry and the new innovative uses of precast and tilt-up construction, Australian Standard AS 3850 Part 1 and Part 2 has recently been updated in 2024. AS 3850 Part 1, Part 2 and Part 3 are detailed below.

- Part 1, called 'General requirements' details the updated performance and testing requirements for suppliers of componentry into the industry. These requirements are significantly different to AS 3850:2015 and should enable the industry to have greater confidence in the products that they are specifying and using.
- Part 2, called 'Building construction', aligns with the 2008 National Code of Practice for Precast, Tilt-Up and Concrete Elements in Building Construction
  and focuses on the interrelation of the various stages of manufacture, construction, transport and erection. It is specifically for the construction design
  and documentation of prefabricated concrete elements in building construction and provides guidance for the Erection Designer and highlights the
  importance of the Erection Design and Documentation. It was updated to align with the changes in Part 1 and the content in Part 3.
- Part 3, called 'Civil construction' provides requirements impacting prefabricated concrete elements in civil, infrastructure and non-building construction. Similar to Part 2, it focuses on various stages of safety, planning, manufacturing, constructions design, casting, transportation, erection and incorporation into the final structure.

The new AS 3850.1:2024 is central for the safe, efficient and cost-effective manufacture, construction, transport and erection of prefabricated concrete elements.

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