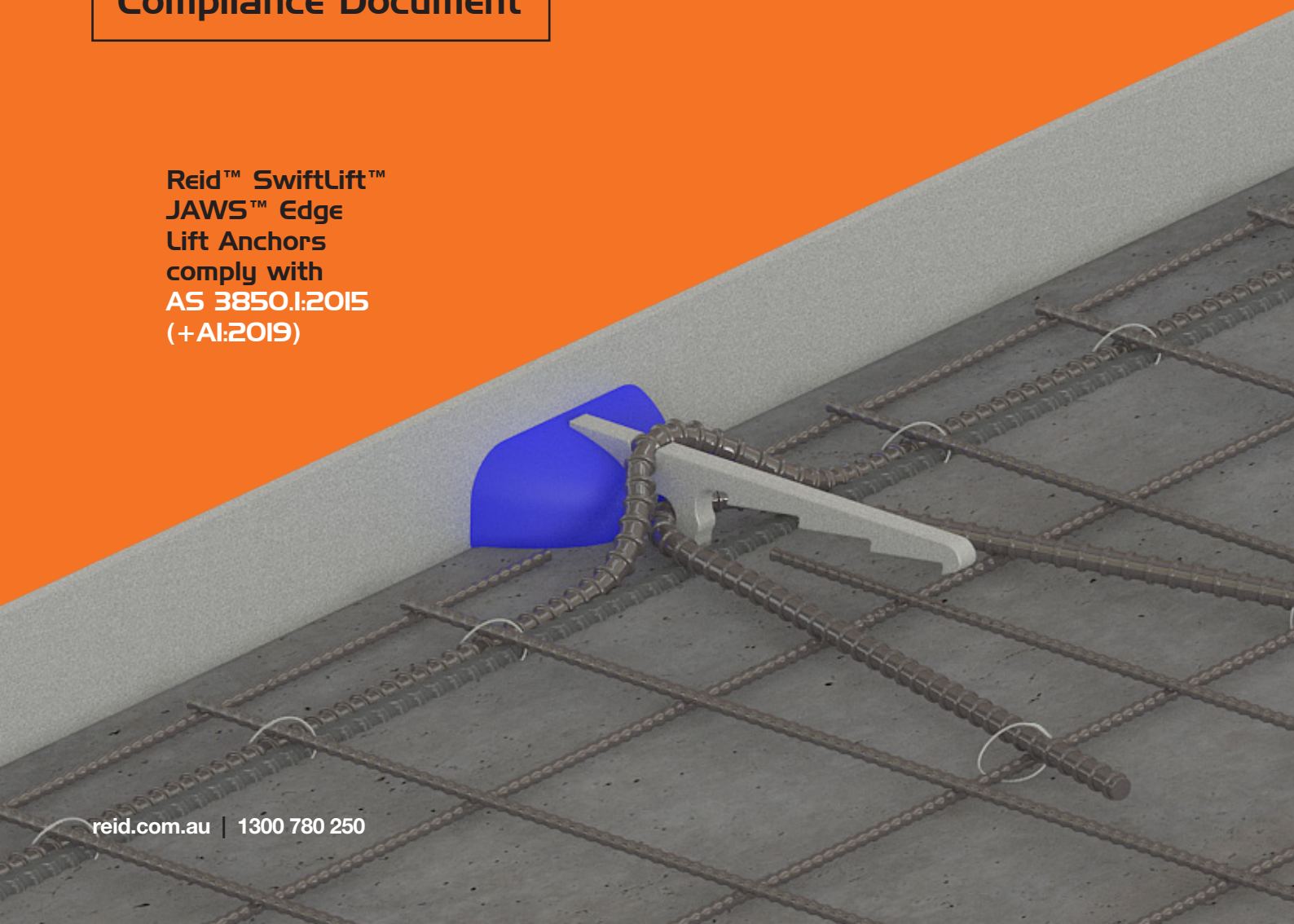
February | 2021 AUS

Reid™ SwiftLift™ JAWS™ Edge Lift Anchors

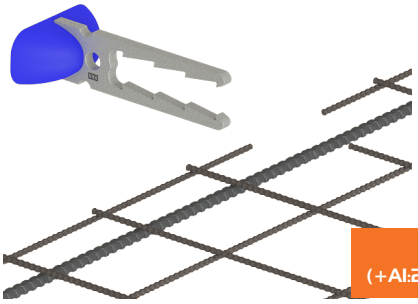
Compliance Document

Reid™ SwiftLift™ JAWS™ Edge Lift Anchors comply with AS 3850.1:2015 (+A1:2019)



Reid™ SwiftLift™ JAWS™ Edge Lift Anchors

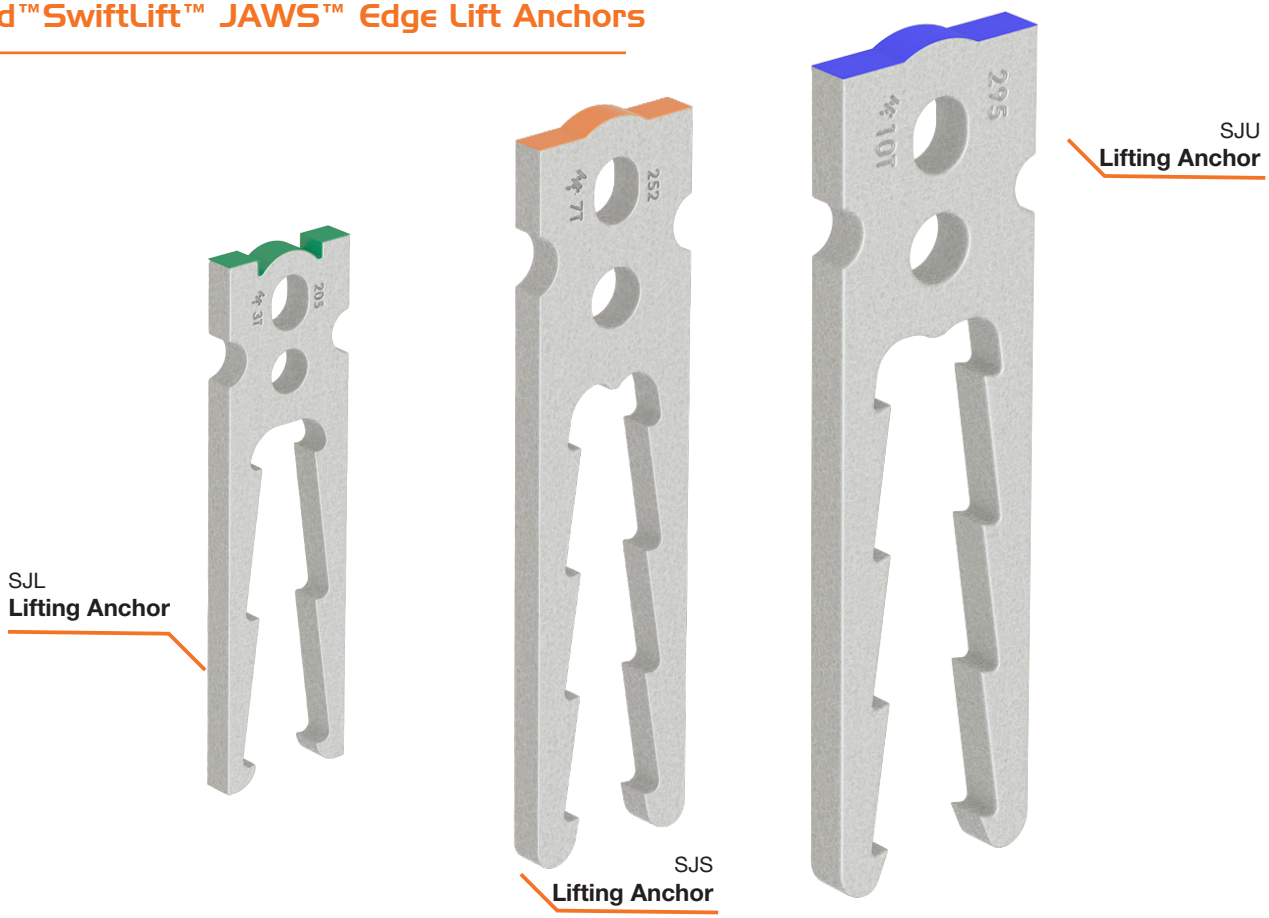
The Reid™ SwiftLift™ JAWS™ Edge Lift Anchors have been designed in Australia to perform under Australian conditions, in Australian concrete, reinforced with Australian reinforcing bar and mesh.



CHARTERED VERIFIED ENGINEER

AS 3850.1:2015 (+A1:2019) Compliant

Figure 1:
Reid™ SwiftLift™ JAWS™ Edge Lift Anchors



Compliance Details

Table 1: AS 3850.1:2015 (+A1:2019) Compliance Details

Clause	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.	✓
2.5.1	Manufactured from ductile steel.	✓
2.5.2.1	WLL determined per clause 2.2.	✓
	Manufactured from steel that is fully killed, with a grain size of six or finer & exhibiting not less than 20% elongation.	✓
	When loaded to tensile failure, a ductile failure and plastic deformation is observed and the failure surface is 100% fibrous.	✓
	Insert assembly including void former shall be marked to ensure compatibility with other system components.	✓
A2	Concrete for testing complies with AS 1379, tested per AS 1012.	✓
A3	Testing and recording of results.	✓
A4	Statistical evaluation of test results, using formula A4, $X_k=x(1-k_sCOV)$.	✓
A5	Production Validation through testing to confirm compliance of critical speciation requirements (dimensions, material properties and load bearing capacity where appropriate).	✓
A6	Tension testing of the manufactured lifting insert.	✓
A7	Characteristic capacity determined from a comprehensive test program including individual and combined effects per Table A3.	✓

Reid™SwiftLift™ JAWS™ Edge Lift Anchors comply with AS 3850.1:2015 (+A1:2019) ✓

TESTED IN LOCAL CONDITIONS

Product Specifications

Reid™ SwiftLift JAWS Edge Lift Anchors – made from Australian DNA.

Compliant to AS 3850.1:2015 (+A1:2019), JAWS offers Precasters edge lift solutions with a rated WLL across range 3t – 10t for typical concrete strengths.

The JAWS teeth configuration allows extremely high retention loads in concrete without the lateral bursting forces that are generated by traditional wavy leg or hairpin anchors.

JAWS Anchors allow for earlier lifting due to their ability to preform with lower concrete strengths. With a range of WLL's, JAWS Anchors can be used in panels as thin as 100mm.

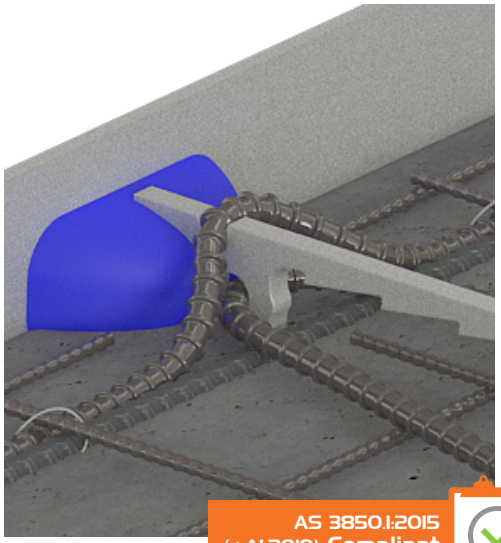
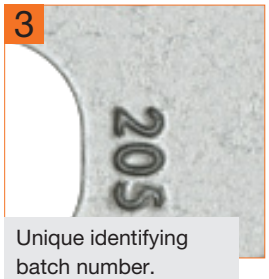


Figure 2: Reid™ SwiftLift™ JAWS™

Reid Logo & Working Load Limit

Colour Code



Unique identifying batch number.

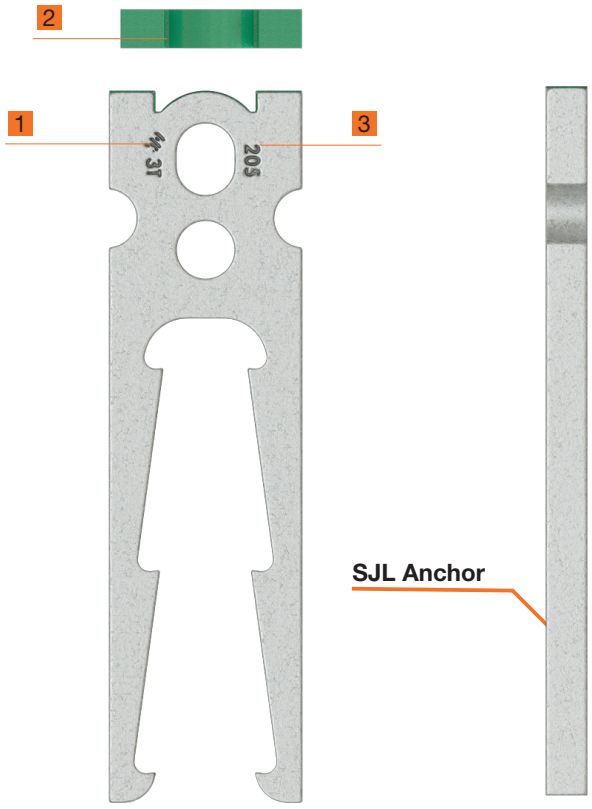
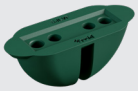


Table 2:
Reid™SwiftLift™ JAWS™ Edge Lift Anchors System

3 Tonne Reid™SwiftLift™ JAWS™ Edge Lift Anchors System:

Part	Part No.	AS 3850 Compliant
Anchor	 SJL	✓
Lifting Clutch	 SJLLC	✓
Void Former	 SJLVF	✓

7 Tonne Reid™SwiftLift™ JAWS™ Edge Lift Anchors System:

Part	Part No.	AS 3850 Compliant
Anchor	 SJS	✓
Lifting Clutch	 3DX85LC	✓
Void Former	 3DX85VF	✓

10 Tonne Reid™SwiftLift™ JAWS™ Edge Lift Anchors System:

Part	Part No.	AS 3850 Compliant
Anchor	 SJU	✓
Lifting Clutch	 SJULC	✓
Void Former	 SJUVF	✓

Reid™ SwiftLift™ JAWS™ Edge Lift Anchors

Performance Data

Table 3: AS 3850.1:2015 (+A1:2019) Tensile and Shear Performance Data (WLL), Tonnes

Panel Thickness (mm)	Part No.	Max WLL (tonne)	Stripping		Placement			Tension Bar
			15MPa	20MPa	25MPa	32MPa	40MPa	Ø and Leg Length (mm) Refer to Figure 6
			Tensile/Shear	Tensile/Shear	Tensile	Tensile	Tensile	
100	SJL	3.0	2.40 / 1.30	2.70 / 1.35	3.00*	3.00*	3.00*	N12 x 300
125	SJL	3.0	2.70 / 1.50	3.00* / 1.50	3.00*	3.00*	3.00*	N12 x 300
	SJS	7.0	7.00*/ 2.00	7.00*/ 2.30	7.00	7.00	7.00	N16 x 500
	SJU	10.0	7.10 / 2.20	7.60 / 2.40	8.00	8.40	8.90	N16 x 500
	SJU	10.0	8.60 / 2.20	9.10 / 2.40	9.40	9.70	9.90	N16 x 750
150	SJL	3.0	3.00* / 1.50	3.00* / 1.50	3.00*	3.00*	3.00*	N12 x 300
	SJS	7.0	7.00*/ 2.30	7.00*/ 2.60	7.00	7.00	7.00	N16 x 500
	SJU	10.0	7.90 / 2.30	8.60 / 2.60	9.10	9.60	10.00*	N16 x 500
	SJU	10.0	9.40 / 2.30	10.00* / 2.60	10.00*	10.00*	10.00*	N16 x 750
	SJU	10.0	10.00* / 2.30	10.00* / 2.60	10.00*	10.00*	10.00*	N20 x 750
175	SJS	7.0	7.00*/ 2.60	7.00*/ 2.80	7.00	7.00	7.00	N16 x 500
	SJU	10.0	8.70 / 2.60	9.50 / 2.80	10.00*	10.00*	10.00*	N16 x 500
	SJU	10.0	10.00* / 2.60	10.00* / 2.80	10.00*	10.00*	10.00*	N16 x 750
	SJU	10.0	10.00* / 2.60	10.00* / 2.80	10.00*	10.00*	10.00*	N20 x 750
200	SJS	7.0	7.00*/ 2.70	7.00*/ 2.90	7.00	7.00	7.00	N16 x 500
	SJU	10.0	9.50 / 2.70	10.00* / 2.90	10.00*	10.00*	10.00*	N16 x 500
	SJU	10.0	10.00* / 2.70	10.00* / 2.90	10.00*	10.00*	10.00*	N16 x 750
	SJU	10.0	10.00* / 2.70	10.00* / 2.90	10.00*	10.00*	10.00*	N20 x 750
300	SJU	10.0	10.00* / 4.10	10.00* / 4.60	10.00*	10.00*	10.00*	N16 x 750
	SJU	10.0	10.00* / 4.10	10.00* / 4.60	10.00*	10.00*	10.00*	N20 x 750

WLL Load capacities include minimum panel reinforcement: SL82, N16 perimeter, centrally placed.
* WLL limited by clutch.

TESTED IN LOCAL CONDITIONS

Reid™ SwiftLift™ JAWS™ Edge Lift Anchors

Product Specifications (mm)

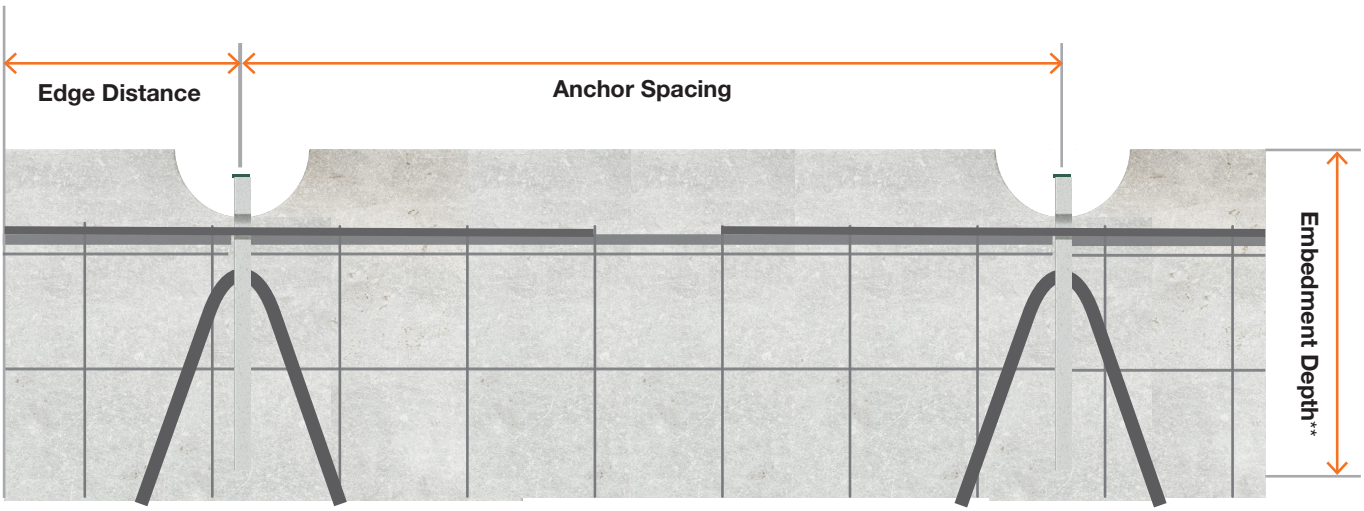


Table 4:
Minimum edge and spacing distances required to achieve performances in Table 3.

Minimum Edge and Spacing Limits		
Anchor Part Number	**Edge Distance (mm)**	**Anchor Spacing (mm)**
SJL	300	700
SJS	420	840
SJU	450	900

**Embedment depth is the effective depth of whole system (Recess former, Edge Lift Anchor and the tension bars).

TESTED IN LOCAL CONDITIONS

Figure 3:
SJL
Clutch, Anchor & Void former

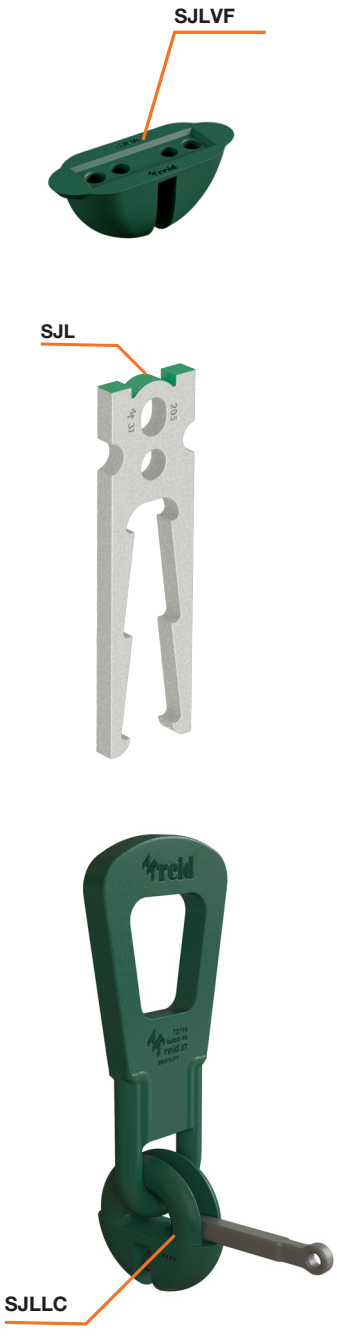


Figure 4:
SJS
Clutch, Anchor & Void former

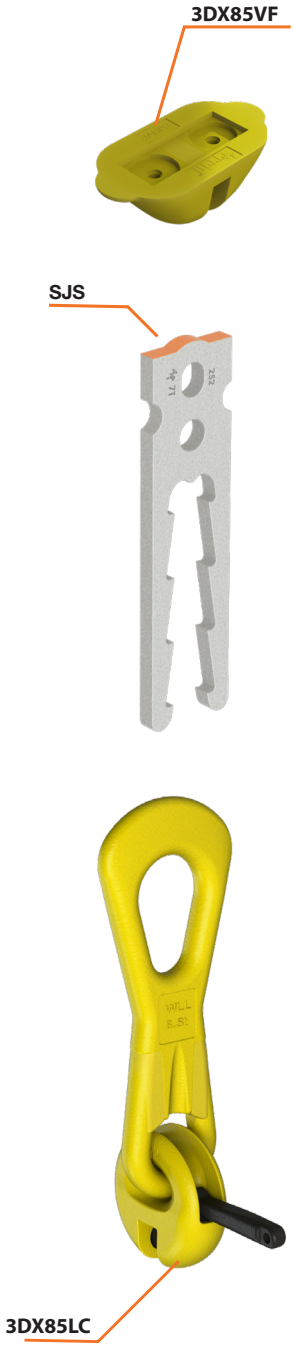


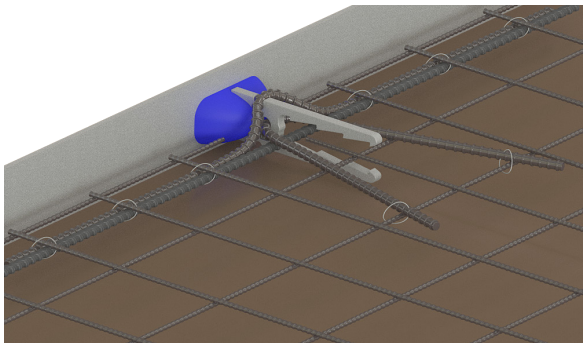
Figure 5:
SJU
Clutch, Anchor & Void former

Installation support details

Installation Support Details

- Anchors must be orientated at right angles to the edge of the panel, and have the appropriate reinforcing bars fitted through the lower hole in the anchor (tension) & resting in the notch, whilst being tied to the surrounding reinforcement (shear) (See image below). To achieve the desired capacity refer Table 3 for tension bar size.

These bars must be bent down into the panel at an included angle of 30 - 60° and with a bend diameter of 4x the bar diameter.



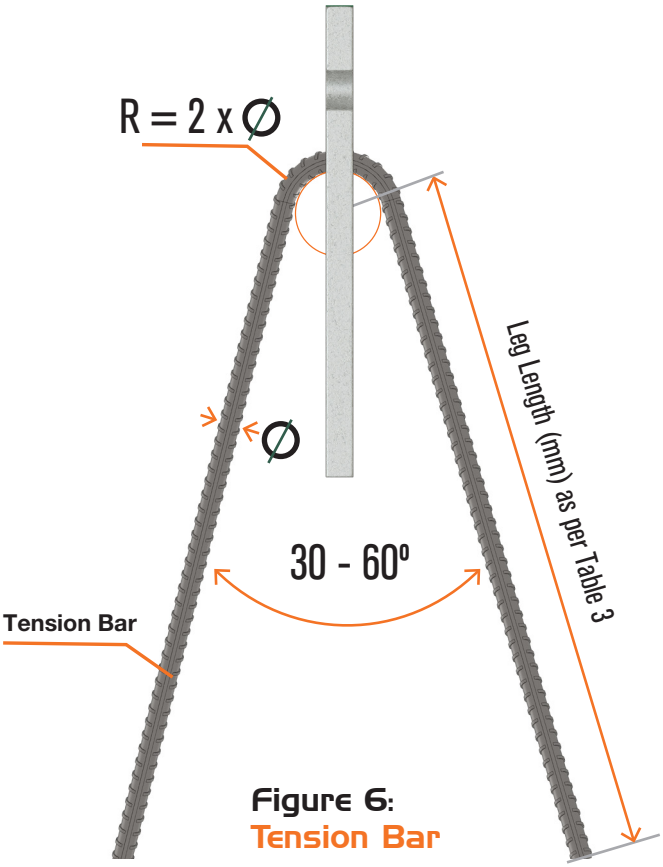
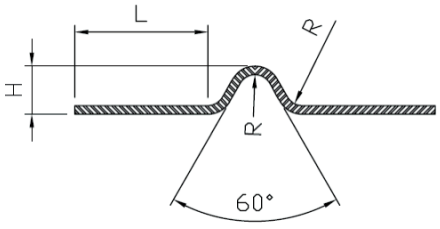


Figure 6: Tension Bar

Table 5: Shear bar details

Anchor Part Number	Part Numbers and Dimensions			
	Diameter, mm	Bend Radius, (R) mm	Length, (L) mm	Height, (H) mm
SJU	N16	32	300	90
SJS	N12	24	250	90
SJL	N10	20	200	60



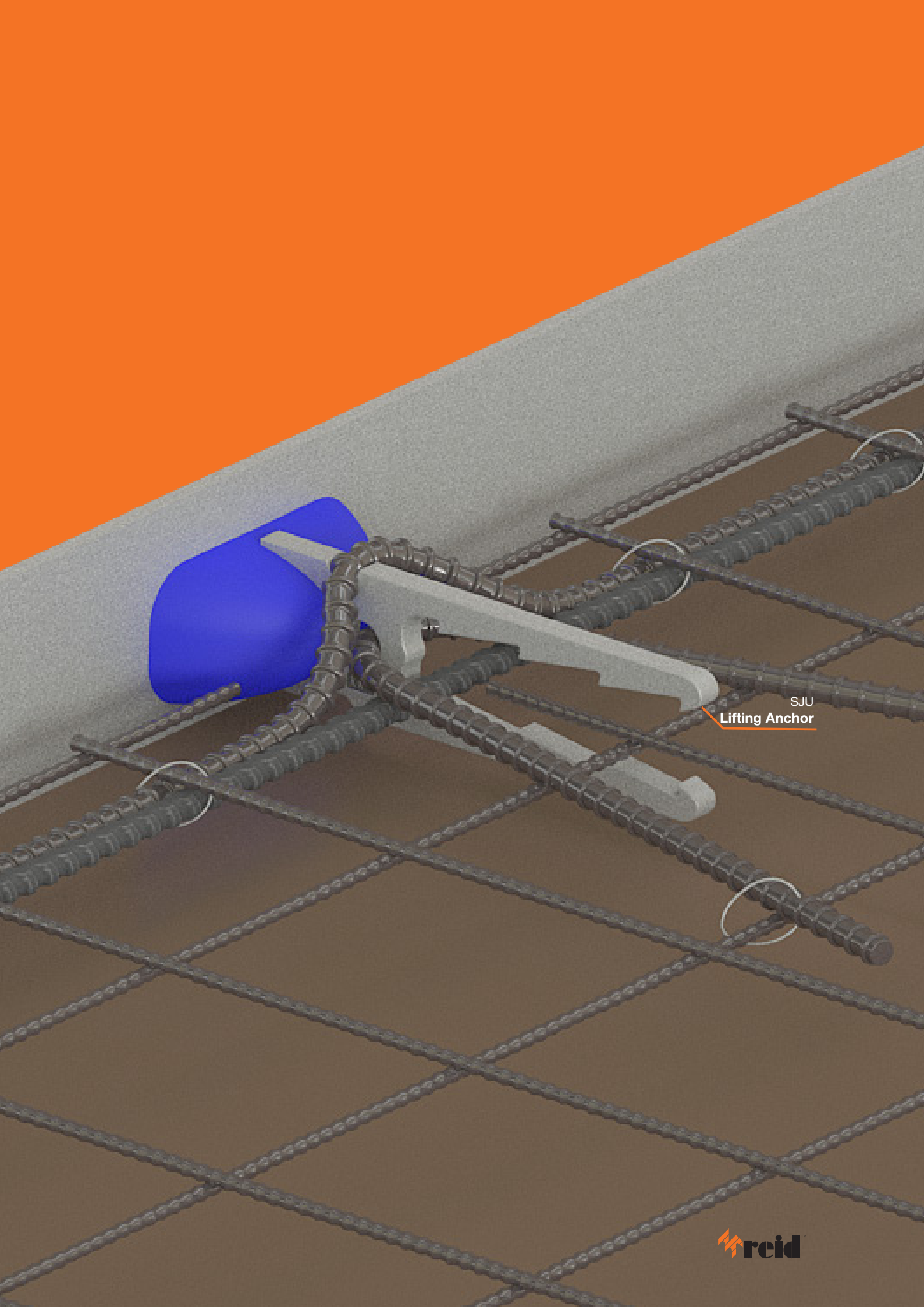
Terms and Conditions

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. ramsetreid™ undertake strict quality control processes to ensure performance specifications and metallurgical properties are maintained.

To reflect the progress of the industry and the new innovative uses of precast and tilt-up construction, Australian Standard AS 3850 was updated in 2015 and amended in 2019.. This update included a change in title to AS 3850:2015 Prefabricated Concrete Elements, a widened scope to include all prefabricated elements in Building Construction and splitting of the document into two parts:

- Part 1, called 'General requirements' details the new performance and testing requirements for suppliers of componentry into the industry. These new requirements are significantly different to AS 3850:2003 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.

The new AS 3850.1:2015 (Incorporating Amendment 1 - 2019) is central for the safe, efficient and cost-effective manufacture, construction, transport and erection of prefabricated concrete elements.


SJU
Lifting Anchor

customer service

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