

SwiftLift™ JAWS™

Edge Lift Anchors



AS 3850.1:2015
COMPLIANT*

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.

Figure1:
SwiftLift™ JAWS™
Edge Lift Anchor range

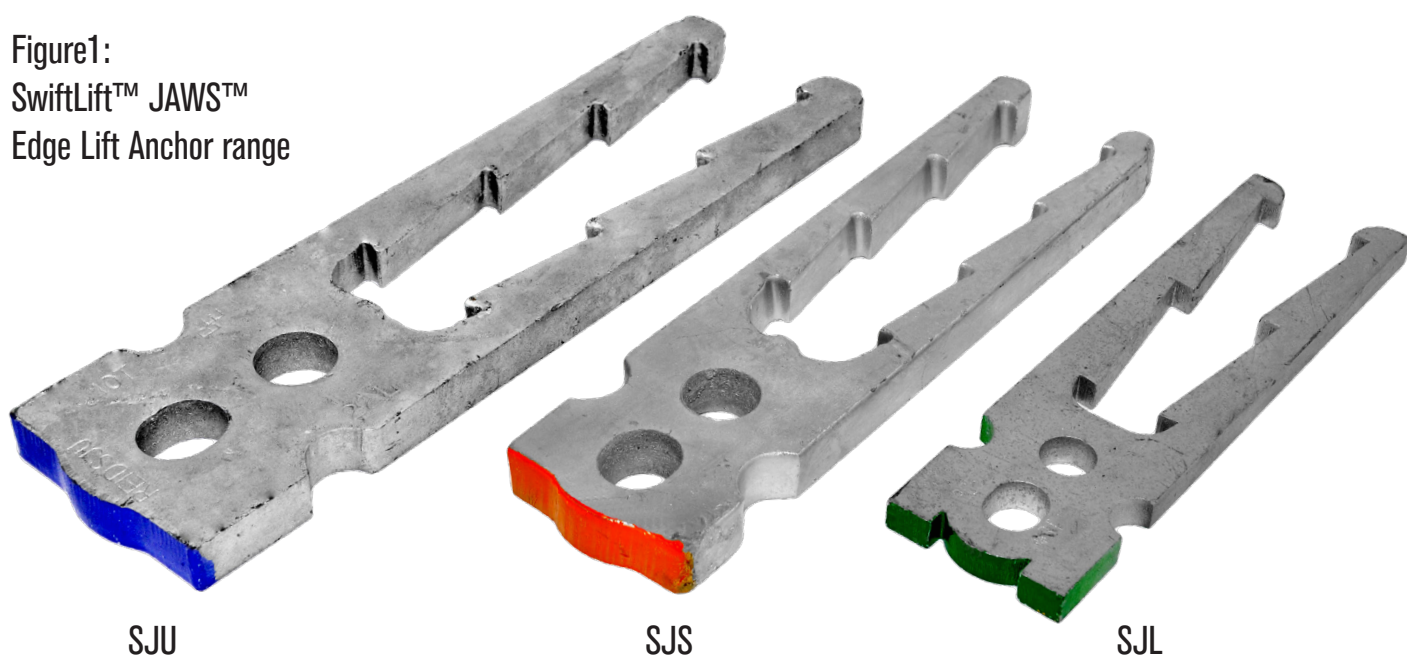






Table 1: JAWS™ system

				
Part	Anchor	Lifting Clutch	Void Former	Nail Plate
Details	AS 3850.1:2015 compliant *	AS 3850.1:2015 compliant, per clutch compliance	AS 3850.1:2015 compliant, ref to table 5	Compliments Void Former, allowing fixing to formwork
Part Number	SJU	SJULC	SJUVF	SJUNP
Part Number	SJS	3DX85LC	3DX85VF	3DX85NP
Part Number	SJL	SJLLC	SJLVF	SJLSP

SwiftLift™ JAWS™ SJS & SJU anchors are manufactured in Australia at the ramsetreid™ Chirnside Park manufacturing facility.

Table 2: AS 3850.1:2015 Performance Data (WLL)

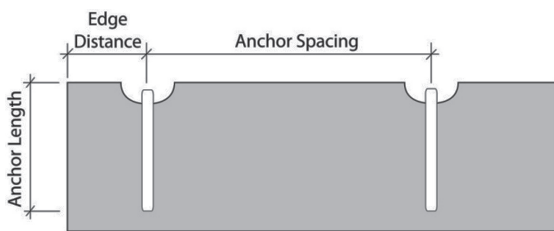
Panel Thickness (mm)	Part #	Max WLL (tonne)	Stripping		Placement			Tension Bar Ø and Length (mm) refer to Figure 2
			15MPa	20MPa	25MPa	32MPa	40MPa	
			Tensile/Shear	Tensile/Shear	Tensile	Tensile	Tensile	
100	SJL	3.0	2.40 / 1.30	2.70 / 1.35	3.00*	3.00*	3.00*	N12 x 300
125	SJL	3.0	2.70 / 1.50	3.00* / 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

WLL Load capacities include minimum panel reinforcement: SL82, N16 perimeter, centrally placed

* WLL limited by clutch

The derivation of performance data for lifting anchors has been significantly changed in AS 3850.1:2015. Lifting anchors that rely on component reinforcement must now be tested as a system, in concrete, in accordance with Appendix A6 and A7 of AS 3850.1:2015.

Table 3: Minimum edge and spacing distances required to achieve performances in Table 2

Minimum Edge and Spacing Limits			
Minimum Panel Thickness (mm)	Edge Distance (mm)	Anchor Spacing (mm)	
SJL	300	700	
SJS	420	840	
SJU	450	900	

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. 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 3850:2015 is central for the safe, efficient and cost-effective manufacture, construction, transport and erection of prefabricated concrete elements.

Table 4: 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

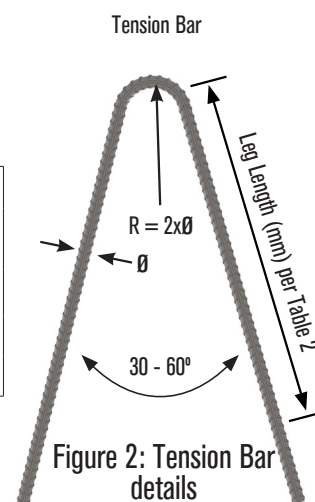
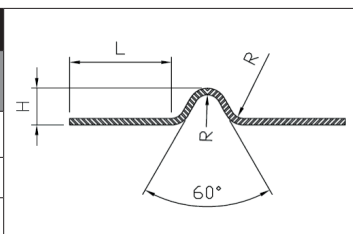


Figure 2: Tension Bar details

Table 5: 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	✓
2.5.1	Manufactured from ductile steel.	✓
252.1	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	✓ Refer figure 3,4,5 & 6
	R_u (used to determine the WLL) shall be determined by testing the anchor and component reinforcement as a system in concrete.	✓
2522	The ratio of R_u with tension bar and without tension bar shall exceed 1.1.	✓
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, $X_k = x(1 - k_s COV)$.	✓
A5	Production Validation through testing to confirm compliance of critical specification requirements (dimensions, material properties and load bearing capacity where appropriate).	✓ * See note on p4
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	✓

Figure 3:
SJU Anchor, SJULC Clutch and SJUVF Void Former

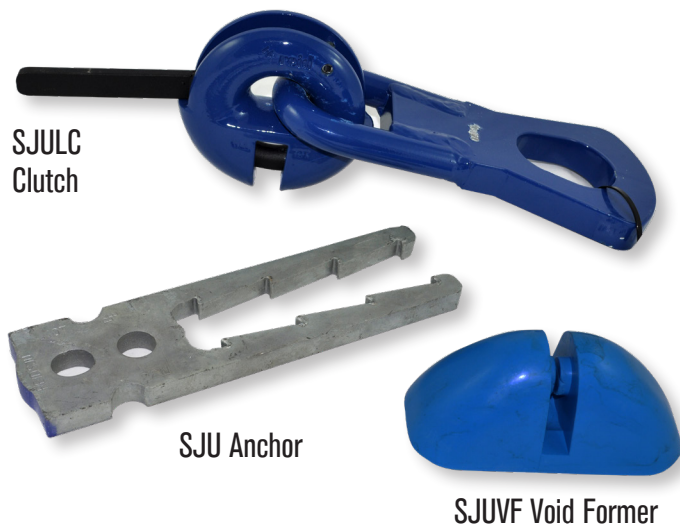


Figure 4:
SJS Anchor, 3DX85LC Clutch and 3DX85VF Void Former

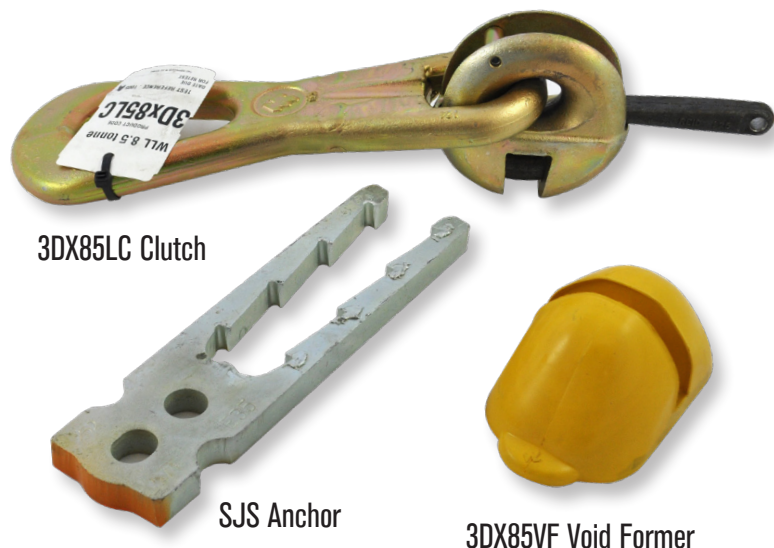


Figure 5:
SJL Anchor, SJLLC Clutch and SJLVF Void Former

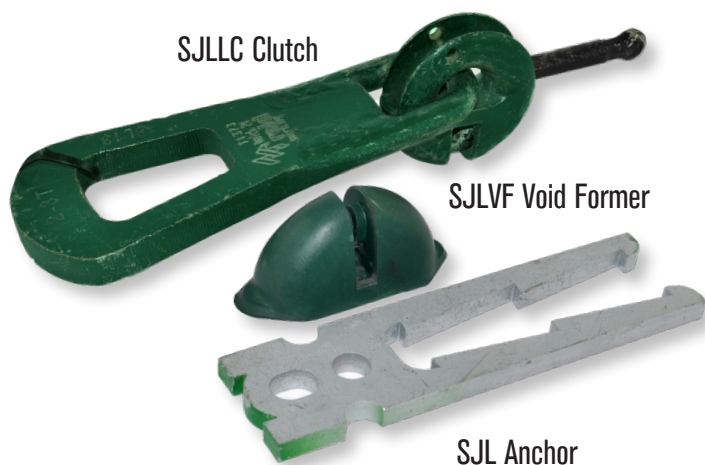
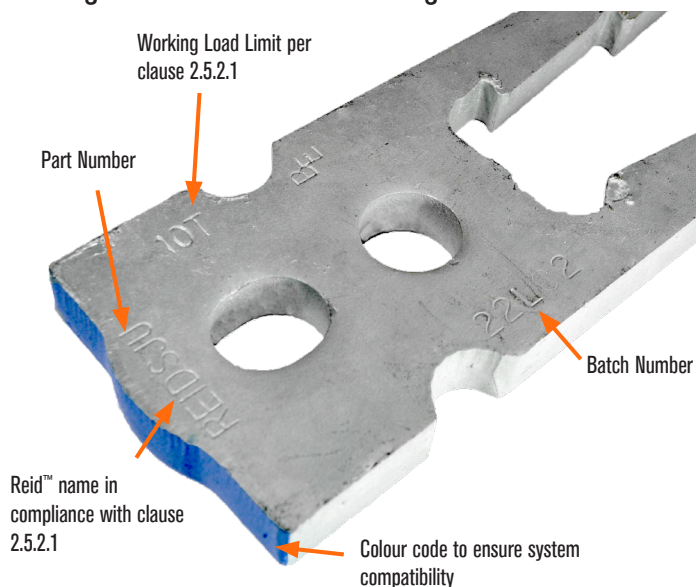


Figure 6: Anchor head markings



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.

* ramsetreid™ are currently in discussions with Australian Standards and the BD-066 committee regarding the wording of Clause A5.3 and the associated cost implications to the Precast industry. ramsetreid™ manage production validation in compliance with our ISO 9001:2015 quality management system. It is expected that Clause A5.3 will be reviewed later in 2016 by the BD-066 committee.

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