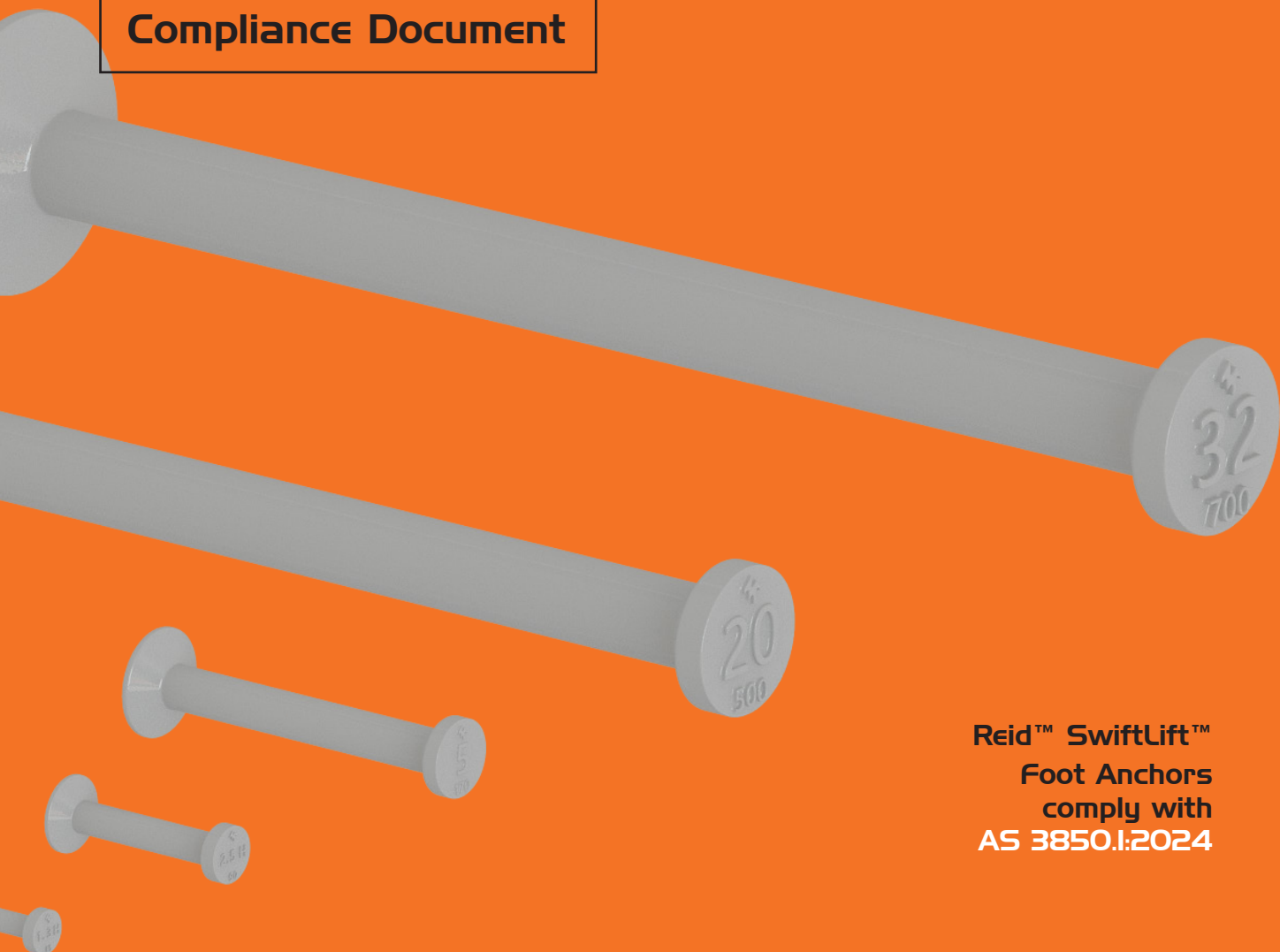




March | 2025 AUS

Reid™ SwiftLift™ Foot Anchors

Compliance Document



Reid™ SwiftLift™
Foot Anchors
comply with
AS 3850.1:2024

SwiftLift™ Foot Anchor



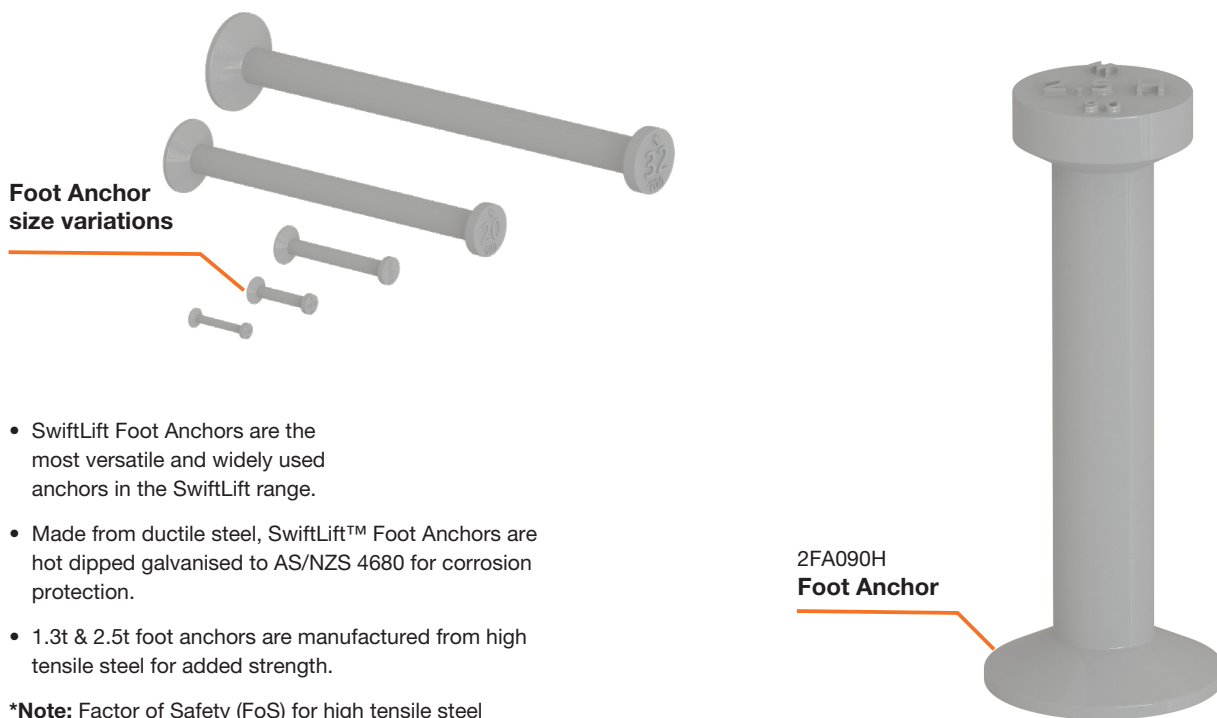
The SwiftLift system utilises a fully engineered approach combining cast-in lifting anchors, recess formers, and custom-fitting lifting clutches. Using the SwiftLift system results in fewer failures, saving time and costs due to damage or construction delays.



AS 3850.1:2024
Compliant



Figure 1:
Reid™ SwiftLift™ Foot Anchor



- SwiftLift Foot Anchors are the most versatile and widely used anchors in the SwiftLift range.
- Made from ductile steel, SwiftLift™ Foot Anchors are hot dipped galvanised to AS/NZS 4680 for corrosion protection.
- 1.3t & 2.5t foot anchors are manufactured from high tensile steel for added strength.

***Note:** Factor of Safety (FoS) for high tensile steel is 4 which is significantly greater than the minimum requirement stipulated in AS 3850.1:2024 Clause 2.2

Compliance Details

Table I: AS 3850.1:2024 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 determine per clause 2.2	
	Manufactured from ductile steel which exhibits plastic deformation prior to failure at all service temperatures for which the insert is designed to be used.	
	When loaded to tensile failure, a ductile failure and plastic deformation is observed and the failure surface is fully fibrous with no cleavage fracture.	
	Insert assembly including void former shall be marked to ensure compatibility with other system components.	 Refer Figure 2
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, $X_k = x(1 - k_s \text{COV})$.	
A5	Production Validation through testing to confirm compliance of critical specification requirements (dimensions and arrangement of the steel reinforcement, 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™ Foot Anchor
comply with AS 3850.1:2024



Reid™ SwiftLift™ Foot Anchor

Consistent with the Reid™ commitment to local testing, SwiftLift™ Foot Anchors have been extensively tested in Australian concrete comprising of over 500 individual tests, and consuming approximately 150 tonnes of concrete.

Analysis of the subsequent test data in accordance with Appendix A results in SwiftLift™ Foot Anchors having Working Load Limit capacities that are far higher and more accurate than those simply calculated using the CCD method.

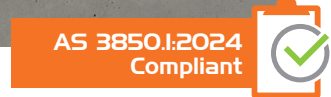
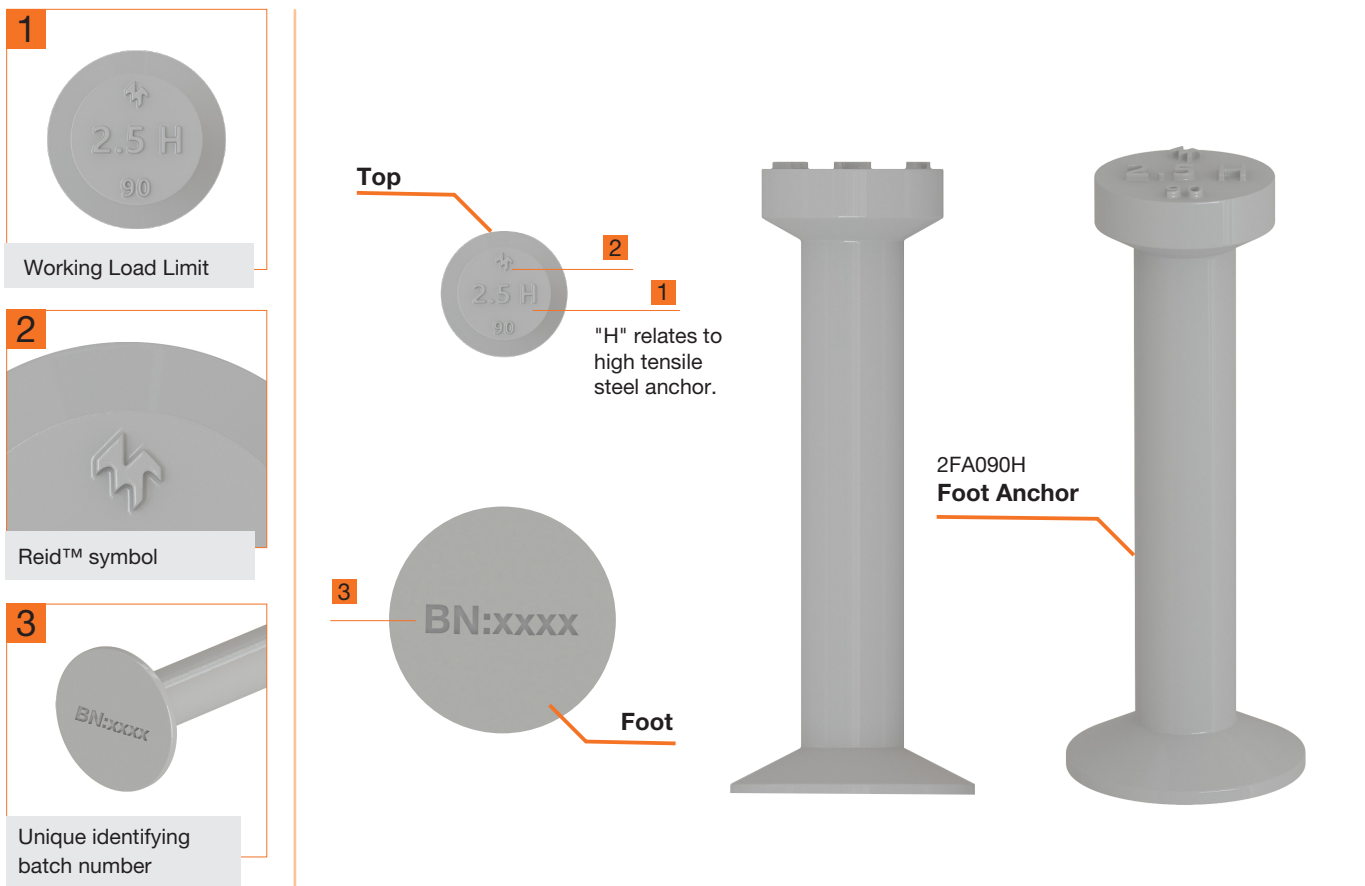


Figure 2: Reid™ Foot Anchor Markings



Product Specifications

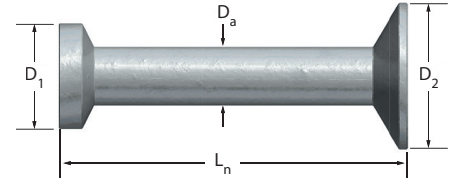


Table 2: Part Numbers & Anchor Dimensions (mm)

Part No.	Description	Shaft Diameter D _a (mm)	Head Diameter D ₁ (mm)	Foot Diameter D ₂ (mm)	Length L _n (mm)	Clutches	Void Formers	Ring (if required)
1.3 tonne WLL (Max)		10	19	25		1LE		
1FA045H	45mm Foot Anchor				45mm		1RFRO 1SRFRO 1SRFROART	- 1RR -
1FA055H	55mm Foot Anchor				55mm			
1FA066H	66mm Foot Anchor				66mm			
1FA085H, 1FASS085*	85mm Foot Anchor				85mm			
1FA120H, 1FASS120*	120mm Foot Anchor				120mm			
1FA240H	240mm Foot Anchor				240mm			
2.5 tonne WLL (Max)		14	26	35		2LE		
2FA055H	55mm Foot Anchor				55mm		2RFRO 2SRFRO 2SRFROART 2PR	- 2RR - -
2FA075H	75mm Foot Anchor				75mm			
2FA090H	90mm Foot Anchor				90mm			
2FA120H	120mm Foot Anchor				120mm			
2FA170H, 2FASS170*	170mm Foot Anchor				170mm			
5 tonne WLL (Max)		20	36	50		5LE		
5FA075	75mm Foot Anchor				75mm		5RFRO 5SRFRO 5SRFROART 5PR	- 5RR - -
5FA095, 5FASS095*	95mm Foot Anchor				95mm			
5FA120	120mm Foot Anchor				120mm			
5FA170	170mm Foot Anchor				170mm			
5FA240	240mm Foot Anchor				240mm			
10 tonne WLL (Max)		28	47	70		10LE		
10FA150	150mm Foot Anchor				150mm		10RFRO	-
10FA200	200mm Foot Anchor				200mm			
10FA340	340mm Foot Anchor				340mm			
20 tonne WLL (Max)		38	70	98		20LE		
20FA250	250mm Foot Anchor				250mm		20RFRO	-
20FA340	340mm Foot Anchor				340mm			
20FA500	500mm Foot Anchor				500mm			
32 tonne WLL (Max)		50	88	135		32LE		
32FA700	700mm Foot Anchor				700mm		32RFRO	-

NOTE: Load capacity may be limited by concrete strength and will be affected by the close proximity of other anchors or edges. See technical and design information for details. *These anchors are available in 316 Stainless Steel ex-stock.



Performance Data

SwiftLift Foot Anchors are the most versatile and widely used anchors in the SwiftLift range. Made from ductile steel, SwiftLift™ Foot Anchors are hot dipped galvanised for corrosion protection. 316 Stainless Steel Foot Anchors are available on request.

Table 3: AS 3850.1:2024 Tensile and Shear Performance Data (WLL), tonnes

Part No.	Concrete Compressive Strength, MPa				
	15	20	25	32	40
1FA045H	0.8	1.0	1.1	1.2	1.3
1FA055H	1.1	1.3	1.3	1.3	1.3
1FA065H	1.3	1.3	1.3	1.3	1.3
1FA085H, 1FASS085*	1.3	1.3	1.3	1.3	1.3
1FA120H, 1FASS120*	1.3	1.3	1.3	1.3	1.3
1FA240H	1.3	1.3	1.3	1.3	1.3
2FA055H	1.2	1.5	1.7	1.9	2.1
2FA075H	2.2	2.5	2.5	2.5	2.5
2FA090H	2.3	2.5	2.5	2.5	2.5
2FA120H	2.5	2.5	2.5	2.5	2.5
2FA170H, 2FASS170*	2.5	2.5	2.5	2.5	2.5
5FA075	2.1	2.4	2.7	3.0	3.4
5FA095, 5FASS095*	3.2	3.7	4.1	4.7	5.0
5FA120	4.2	4.8	5.0	5.0	5.0
5FA170	5.0	5.0	5.0	5.0	5.0
5FA240	5.0	5.0	5.0	5.0	5.0
10FA150	5.8	6.7	7.5	8.5	9.5
10FA200	8.6	9.9	10.0	10.0	10.0
10FA340	10.0	10.0	10.0	10.0	10.0
20FA250	11.2	13.0	14.5	16.4	18.4
20FA340	14.9	17.2	19.3	20.0	20.0
20FA500	20.0	20.0	20.0	20.0	20.0
32FA700	32.0	32.0	32.0	32.0	32.0

*These anchors are available in 316 Stainless Steel ex-stock. Lead time applies on all other stainless-steel anchors requests. Capacities highlighted in orange are limited by the system capacity.



Figure 3: 5FA120 Foot Anchor tested close to an edge.



Figure 4: 1FA045 Foot Anchor tested in tension.



Product Specifications (mm)

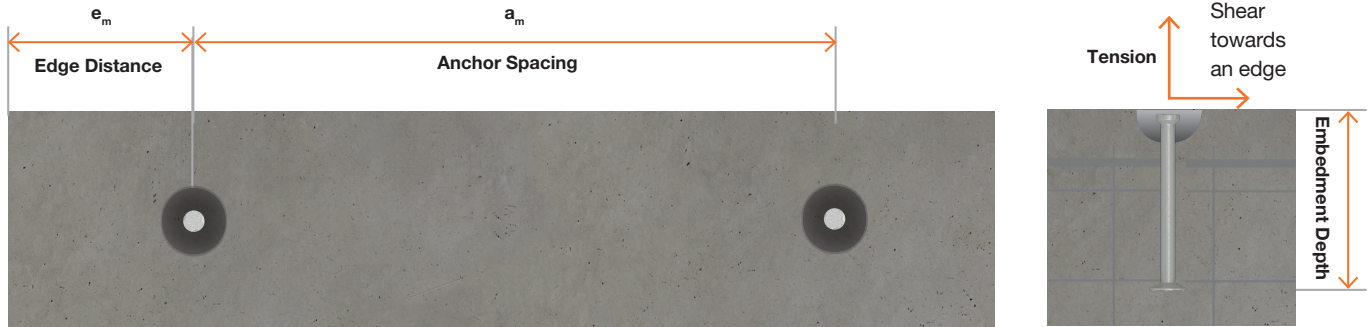


Table 4: Minimum edge and spacing distances required to achieve tensile performances in Table 3

Embedment Depth h_{ef} (mm)	60	130	160	200	300	500	700	1,200
Limiting Edge Distance e_m (mm)	90	195	240	300	450	750	1,050	1,800
Limiting Spacing a_m (mm)	180	390	480	600	900	1,500	2,100	3,600

Table 5: Minimum edge and spacing distances required to achieve WLL in Shear towards an edge.

Load Group (t)		1.3	2.5	5	10	20	32
Limiting Edge Distance e_m (mm)*	15MPa	170	230	330	490	760	1040
	25MPa	140	200	280	430	660	890
Limiting Spacing a_m (mm)*	15MPa	500	700	980	1470	2280	3120
	25MPa	420	590	830	1290	1980	2670

*Note: Limiting Edge Distance and Spacing is based on unreinforced concrete and a Minimum substrate thickness (b_m) of 1.5 x Limiting Edge Distance (e_m) [$b_m = 1.5e_m$]. If conditions are outside these parameters, please contact a Reid™ Engineer.

Quality and Compliance

AS 3850.1:2024 Compliant



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.

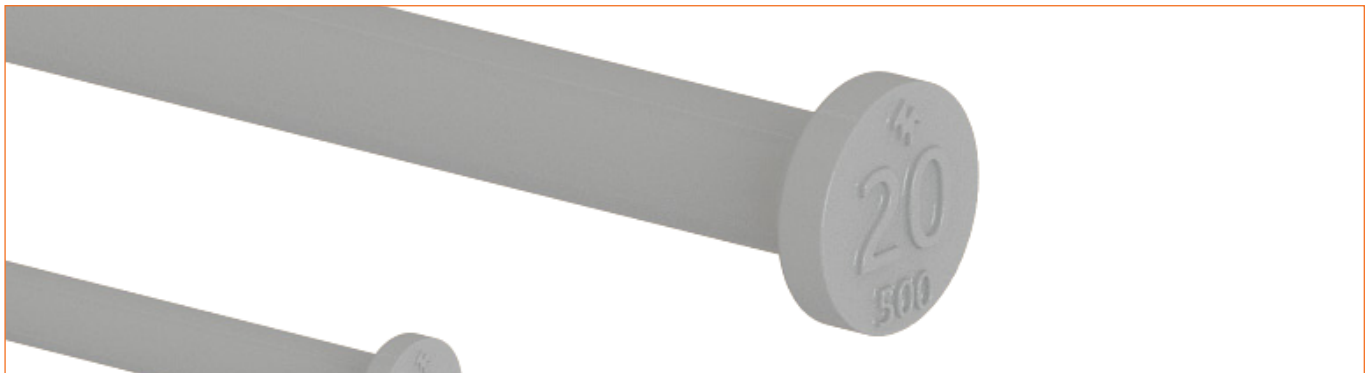
To reflect the continued progress of the industry and the new innovative uses of precast and tilt-up construction, Australian Standard AS 3850 Part 1 and Part 2 has recently been updated in 2024. AS 3850 Part 1, Part 2 and Part 3 are detailed below.

- 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, construction 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.



Quality and compliance are at the core of everything we do. Our commitment to ISO 9001:2015 certification ensures every Reid™ product meets the highest standards of safety, performance, and reliability.



TESTED
IN LOCAL
CONDITIONS





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