Footed Bracing Ferrule and Coil Bolt

Reid™ Footed Bracing Ferrule is specifically designed for use with the Reid coil bolt for bracing applications.

AS 3850.1:2015 COMPLIANT*

Footed Bracing Ferrule Key Features:

- Class 5.8 steel.
- Use in near or far face applications with the Reid range of accessories.
- Footed design ensures maximum concrete capacity without the need for a cross bar.
- May be used with rebar for fixing to mesh.
- Reid™ logo and material grade stamped on ferrules.

Figure 1: Reid Footed Bracing Ferrule

Figure 2: Reid Coil Bolt

Table 1: Compliance details

Clause number	Requirement	Compliant
2.2	The Working Load Limit has been determined by using the CCD method in accordance with Appendix B, using a FOS per Table 2.1.	✓
2.5.1	All lifting inserts, brace inserts and ferrules shall be manufactured from ductile materials.	✓
2.5.4	The engagement length of the bolt in the insert shall be specified by the supplier of the system.	✓ Refer to Fig 4
	Inserts when used in tension shall be designed with a steel capacity that exceeds that of the class of the matching bolt and at a minimum, that of class 4.6 bolt in accordance with AS 1111.1.	✓
	Torque limits for cast in components shall be provided in the erection documentation.	✓ Refer to Table 2
Appendix A	Product Validation through testing to confirm compliance of critical specification requirements (dimensions, material properties and load bearing capacity where appropriate).	✓ * See note on p3
Appendix B	Determine tensile WLL in accordance with CCD method.	✓

Table 2: Installation details

Ferrule	Installation Details			Minimum Dimensions			Working Load Limit (kN)			
	Cross hole to suit	Tightening Torque, T_r (Nm)	Min Thread engagement (mm)	Edge Distance, e_c (mm)	Anchor Spacing, a_c (mm)	Substrate thickness, b_m (mm)	Shear, V_a	Tension, N_a		
							Bolt Class	Concrete Comp. Strength f'c		
							5.8	20 MPa	32 MPa	40 MPa
CBF2095	N12	180	30	135	270	115	31.8	25.3	31.9	35.7

Refer Table 1 Clause 2.5.2.1. Tightening Torque and Thread Engagement

Figure 3: Minimum edge and spacing distances

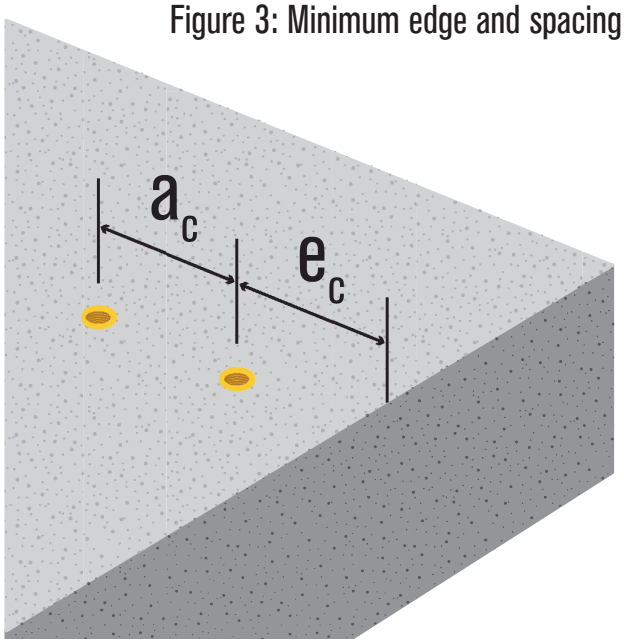

Table 4: Engineering Properties - CBF2095 Reid Footed Bracing Ferrule

Ferrule	Stress area threaded section, A_s (mm^2)	Carbon Steel		Section modulus, Z (mm^3)
		Yield strength, f_y (MPa)	UTS, f_u (MPa)	
CBF2095	242.0	400	500	1034.0

Table 5: Engineering Properties - CBW2065 Reid Coil Bolt

Bolt	Length, (mm)	Stress area threaded section, A_s (mm^2)	Carbon Steel		Section modulus, Z (mm^3)
			Yield strength, f_y (MPa)	UTS, f_u (MPa)	
CBW2065	65	231	400	500	495

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Table 6: Ferrule details

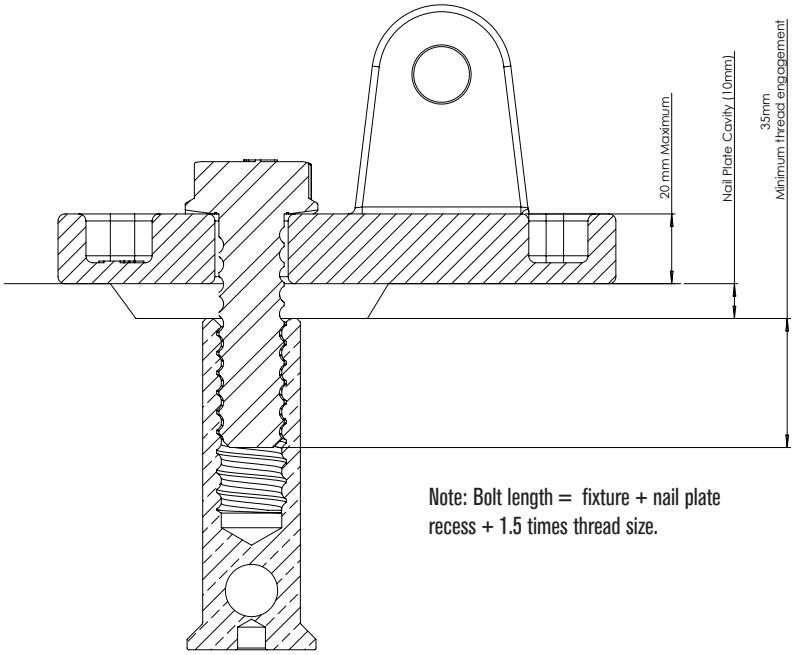
Ferrule	Ferrule OD (mm)	Ferrule length, L (mm)	Effective depth, h (mm)	Thread length, Lt (mm)	Cross hole to suit	Part No.
CBF2095	28	95	91	38	N12	CBF2095

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.

Figure 4: Thread Engagement Length



Note: Bolt length = fixture + nail plate recess + 1.5 times thread size.

Certified System
Quality
ISO 9001
SAI GLOBAL

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 in 2016 by the BD-066 committee.*

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