

ReidBrace™

Installation Guide

Document contains
important installation
Guidelines with regards
to the ReidBrace
Engineered Bracing
System



ReidBrace™

Installation

Guideline



Step 1: Checks

1. Check if all RBRACE components are in the box.
2. Check if the RBRACE fitting flanges will fit onto the steel cleat.

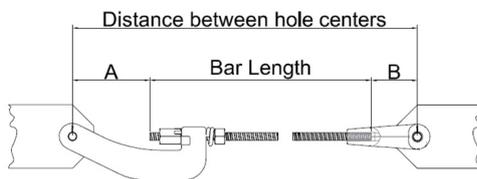
Boxed Set contents:

1. Reid Tension Spring
2. Reid Tab Washer
3. RBRACE
4. RBRACE-END
5. Half Nut & Full Nut
6. Pin and Clip/s



Step 2: Measure

1. Measure the centre to centre distance between the holes on the steel cleat.
2. Subtract the above length by A+B as per the following table. This is the length of ReidBar to be cut.



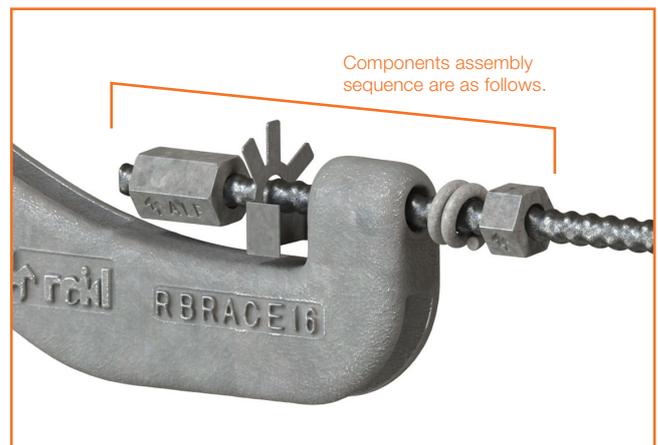
ReidBar Size	RBRACE	A ± 5mm	RBRACE-END	B ± 5mm	A + B (mm)
RB12	RBRACE12/16	135	RBRACE12-END	75	210
RBA16	RBRACE12/16	130	RBRACE16-END	80	210
RB20*	RBRACE20	175	RBRACE20-END	105	280
RBA20**	RBRACE20(A)	175	RBRACE20-END(A)	105	280
RB25	RBRACE25	175	RBRACE25-END	125	300
RB32	RBRACE32	200	RBRACE32-END	135	335

*New Zealand only **Australia only

Step 3: Assemble



1. Insert ReidBar into the RBRACE-END fitting and tighten. *See [ReidBar Steel Components Specification Installation Guide](#) re coupling of ReidBar lengths.
2. Insert ReidBar Half Nut into the other side of the bar, followed by inserting the tension spring.
3. Slide the RBRACE Fitting onto the ReidBar, followed by inserting the tab washer onto the ReidBar with the tabs facing the Half Nut.



4. Wind ReidBar Nut onto the ReidBar until it is flush with the end of the ReidBar. This will give adjustability to the RBRACE fitting upon installation.

Customer Services

1300 780 250 | Australia
0800 88 22 12 | New Zealand

ReidBrace™

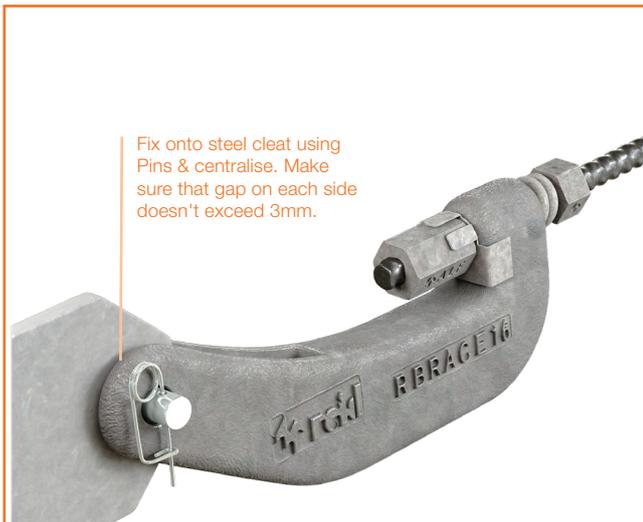
Installation

Guideline



Step 4: Install

1. Lift the ReidBrace assembly into location.
2. Fix the RBRACE-END fitting onto the steel cleat using the pins supplied in the box set. Fix clip/s through hole/s in pin.



3. Place necessary means to prop the ReidBrace assembly so that the sag of the brace is not excessive. A sag of 1 in 100 is recommended as a maximum deflection (refer to HERA: Seismic Design of Steel Structures).
4. Fix the RBRACE fitting onto the steel cleat using the pins supplied in the box set. Fix clip/s through hole/s in pin.
5. Adjust the Half Nut and Nut position so that the 1 in 100 maximum deflection criteria is met.
6. Tighten the Half Nut to fully compress the tension spring. Fold the tab washers onto the ReidBar Nut.

Step 5: Check



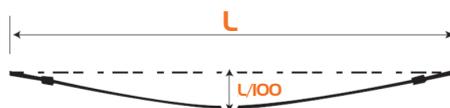
1. ReidBar is tightly fastened into the RBRACE-END fitting.
2. The deflection of the brace shall not exceed 1 in 100 of the brace length.



3. Tension spring is fully compressed.
4. Tab washer is folded onto the ReidBar Nut.
5. Supplied Pins and Clips are securely fixed to steel cleats at both ends.

Preloading Bracing System

Tension on structural bracing span should meet $L/100$ sag criteria.



Ref: HERA report R4-80 section 3.3.2
Woolcock, S T and Kitipornchai, S; Tension Members and Self-Weight; Steel Construction, Vol. 19, No. 1, May 1985, Australian Institute of Steel Construction.

Customer Services

1300 780 250 | Australia
0800 88 22 12 | New Zealand