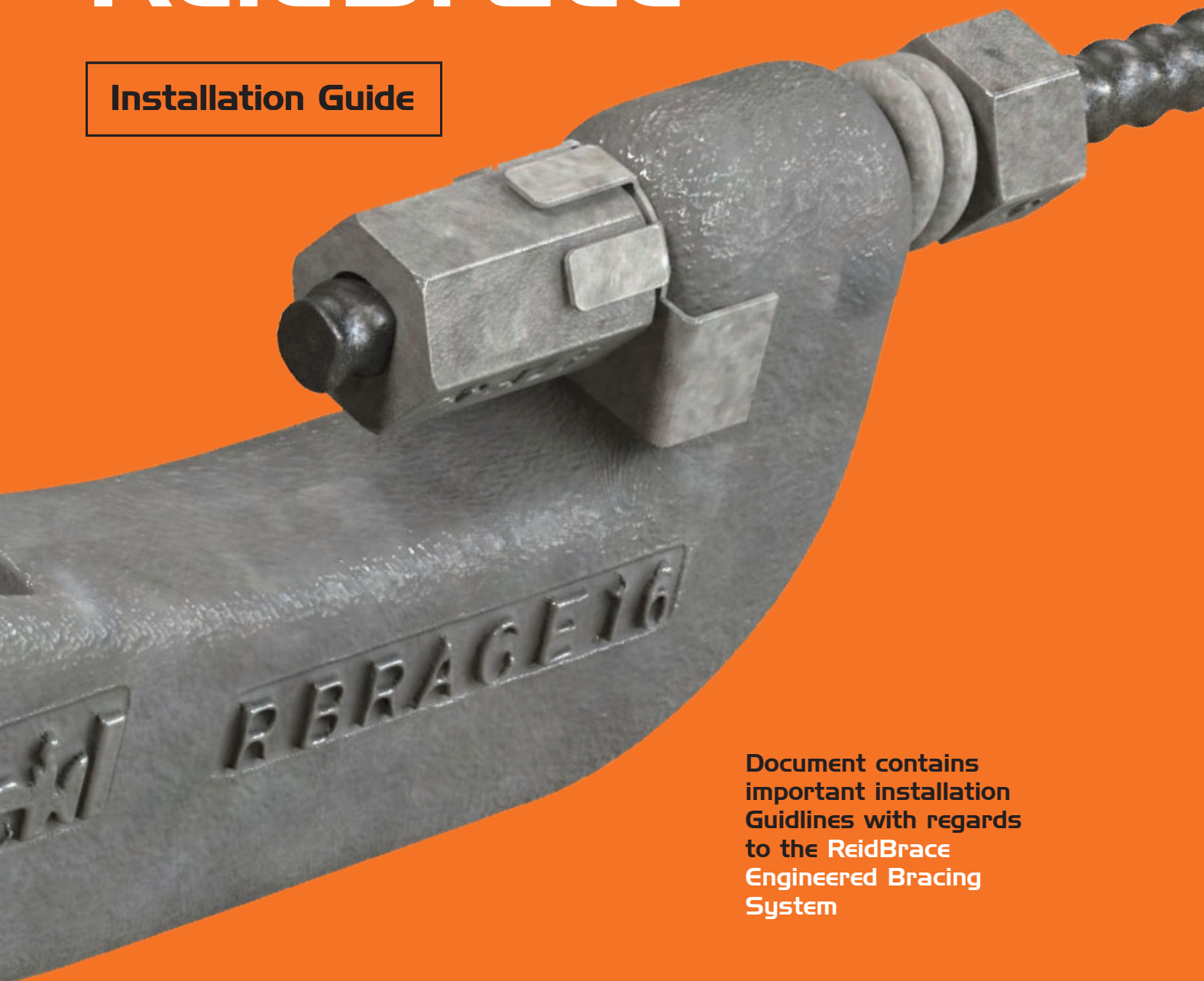


# ReidBrace™

## 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.

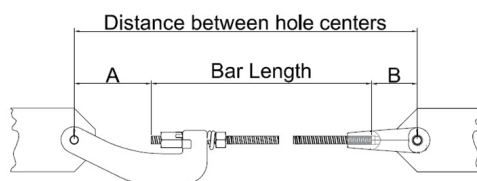
#### Boxed Set contents:

1. Reid Tension Spring
2. Reid Tab Washer
3. RBRACE
4. RBRACE-END
5. Half Nut & Full Nut
6. Bolt, Nut & Washers Set



### 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

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# 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 bolts supplied in the box set. Place a washer on each side outside the RBRACE-END fitting.
  - Install the nylok nut onto the bolt such that the underside of the bolt head, nut, washers and RBRACE-END fitting are in contact.

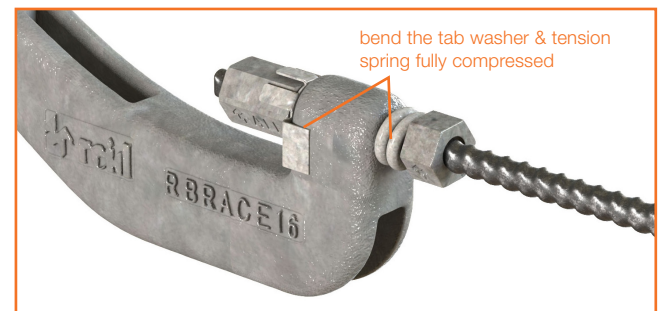


3. Place necessary means to prop the ReidBrace assembly so that the sag of the brace is not excessive. A sag of 1 in 100 is recommended as a maximum deflection (refer to HERA: Seismic Design of Steel Structures).
4. Fix the RBRACE fitting onto the steel cleat using the bolts supplied in the box set. Place a washer on each side outside the RBRACE fitting.
  - Install the nylok nut onto the bolt such that the underside of the bolt head, nut, washers and RBRACE fitting are in contact.
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



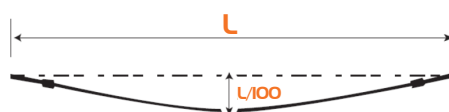
1. ReidBar is tightly fastened into the RBRACE-END fitting.
2. The deflection of the brace shall not exceed 1 in 100 of the brace length.



3. Tension spring is fully compressed.
4. Tab washer is folded onto the ReidBar Nut.
5. Nyloc nut maintains grip and could not be undone freely by hand. Otherwise, contact ramsetreid immediately.

### 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.

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