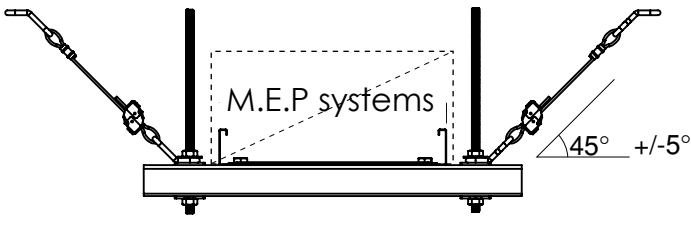
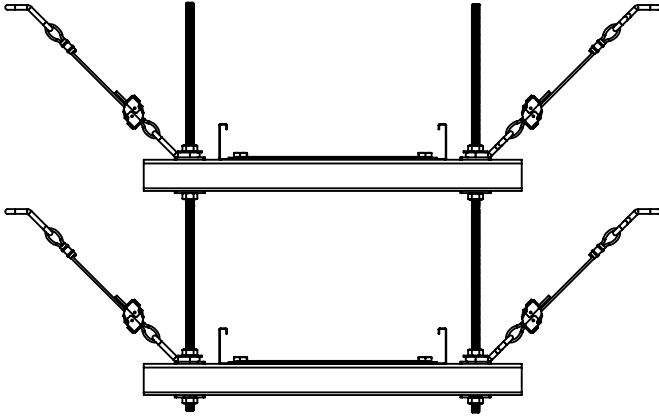


M.E.P. systems secured to trapeze per manufacturer's requirements



Single layer trapeze



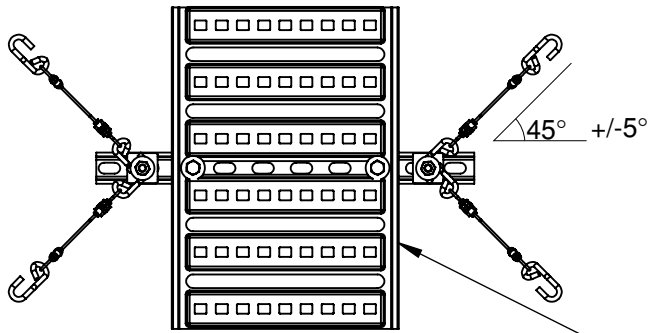
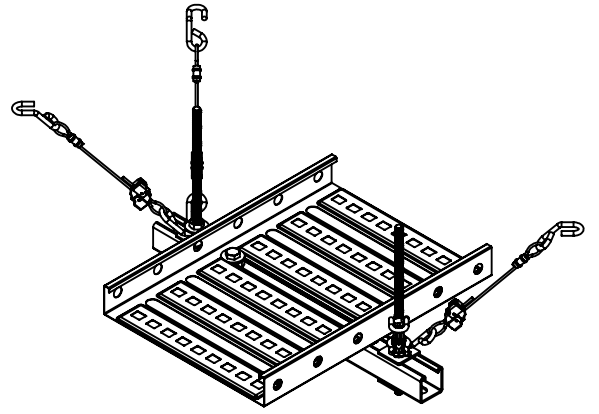
Multi layered trapeze

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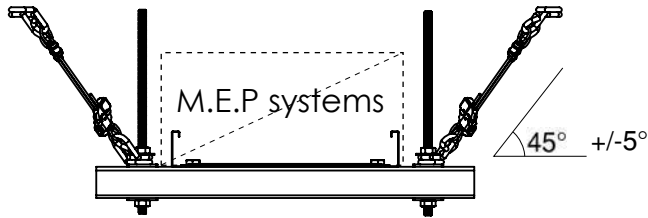
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**SCB.2W**  
 2 Way Transverse  
 Seismic Cable Brace Installation

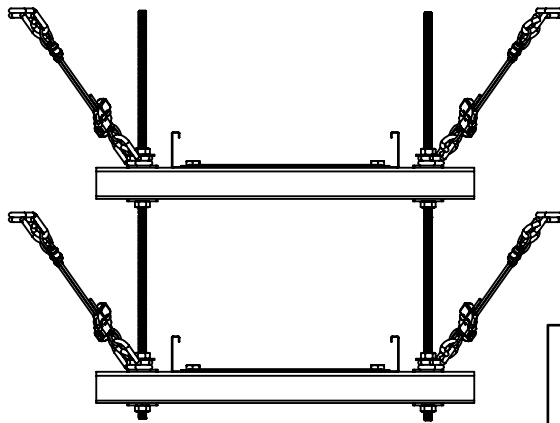
Drawing No.  
**SCB.2W**  
 Revision  
**B**



M.E.P systems secured to trapeze per manufacturer's requirements



Single layer trapeze



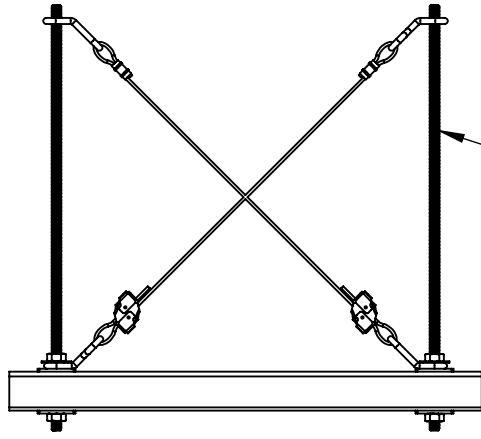
Multi layered trapeze

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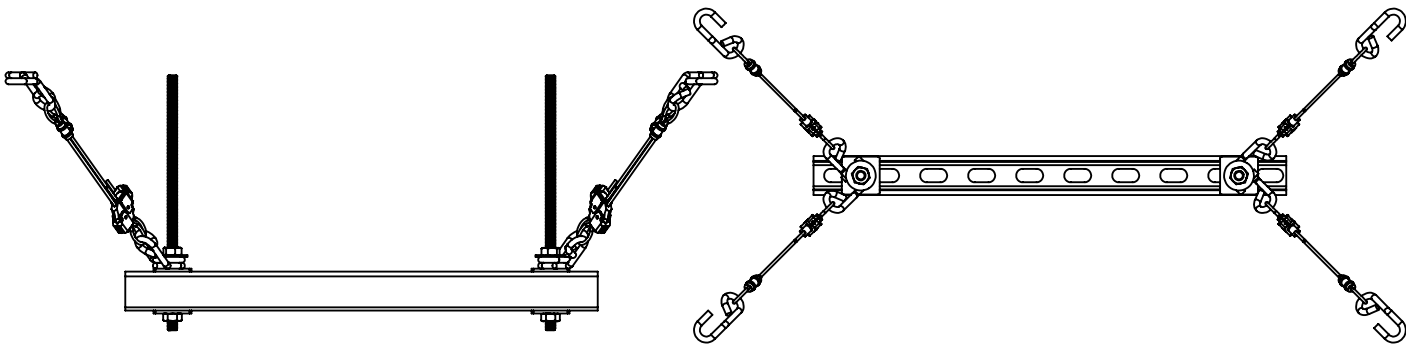
**SCB.4W**  
 4 Way Transverse, Longitudinal  
 Seismic Cable Brace Installation

Drawing No.  
**SCB.4W**  
 Revision  
**B**

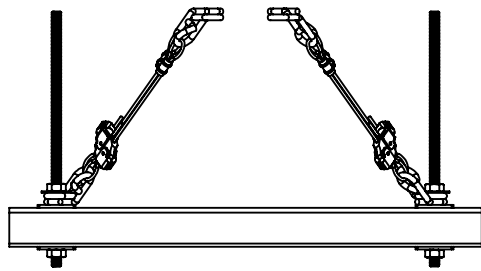


REFER TO VAICO  
FOR ANCHORAGE  
REVIEW PRIOR TO  
INSTALLATION

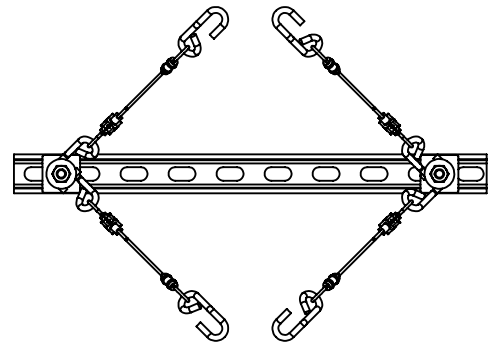
SECTION THRU TRAPEZE  
ALTERNATE CABLE TRANSVERSE  
BRACE PATTERN



SECTION THRU TRAPEZE  
STD. CABLE TRANSVERSE BRACE  
PATTERN



SECTION THRU TRAPEZE  
ALTERNATE CABLE TRANSVERSE  
BRACE PATTERN



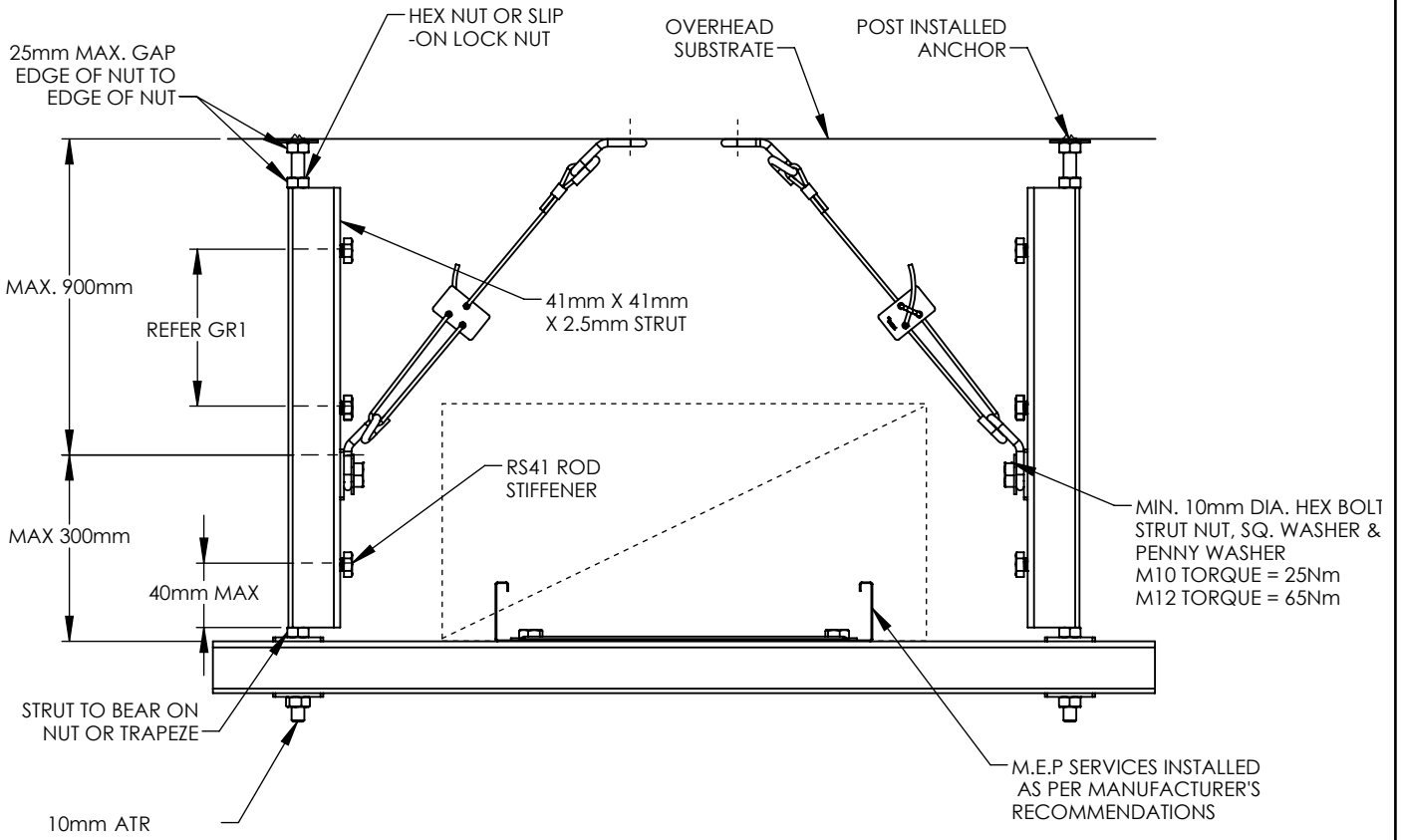
OVERHEAD VIEW  
ALTERNATE SPLOYED CABLE  
BRACE PATTERN

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**BRT2**  
**Alternate Cable Brace Arm**  
Patterns Trapeze Supported Systems

Drawing No.  
**BRT2**  
Revision  
**B**



## ELEVATED BRACE ARM ATTACHMENT - TRAPEZE RACKS

2 WAY OR 4 WAY CABLE BRACES

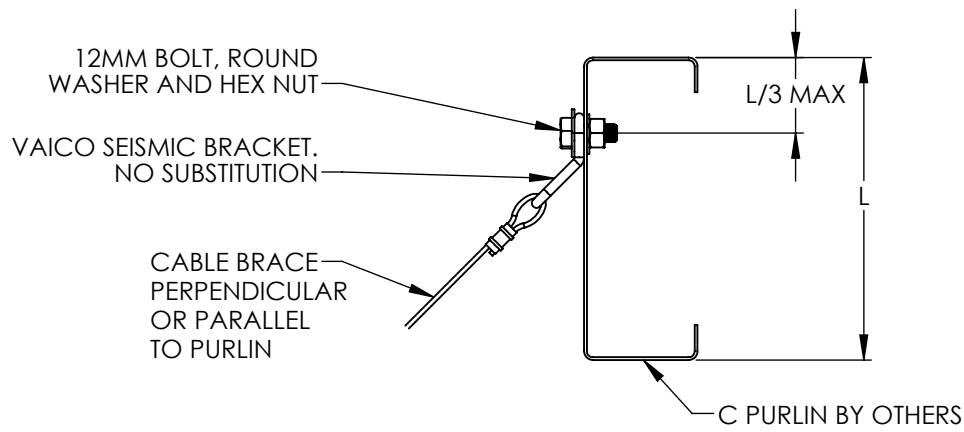
EXTERNAL & INTERNAL DIRECTIONS

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**BRE1**  
 Elevated Brace Arm Attachment  
 Trapeze Racks

Drawing No.  
**BRE1**  
 Revision  
**D**



ALLOWABLE CONNECTION CAPACITY

PURLIN		Pmax	
mm	(ga)	kN	kg
2.66	(12.0)	8.92	909
1.81	(14.0)	6.25	637
1.44	(16.0)	4.96	506
1.15	(18.0)	3.94	885
0.88	(20.0)	2.91	655

A. PERPENDICLUAR TO PURLIN

ALLOWABLE CONNECTION CAPACITY

PURLIN		Pmax	
mm	(ga)	kN	kg
2.66	(12.0)	11.51	1173
1.81	(14.0)	8.07	822
1.44	(16.0)	6.41	653
1.15	(18.0)	5.08	518
0.88	(20.0)	3.79	386

B. PARALLEL TO PURLIN

BRACETO C PURLIN

NOTES:

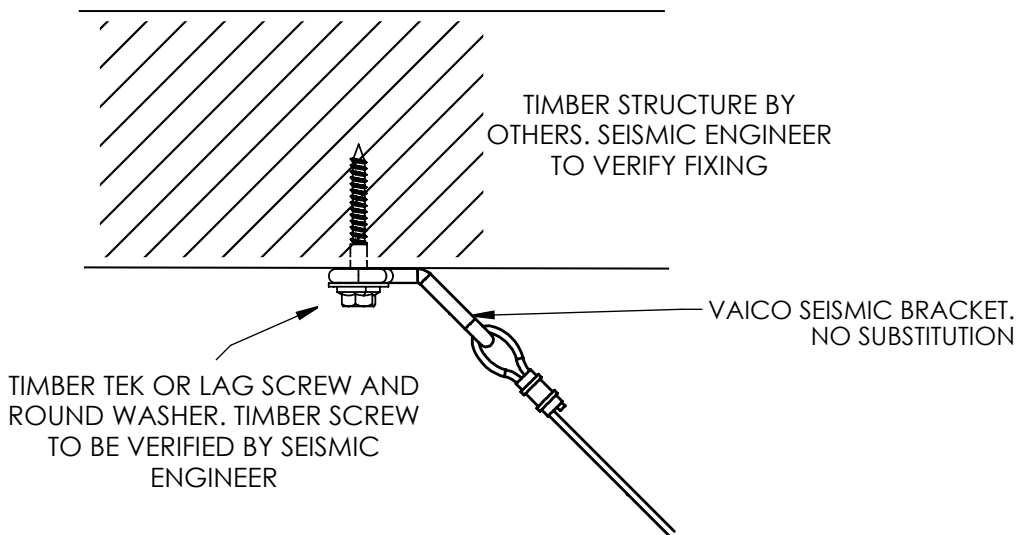
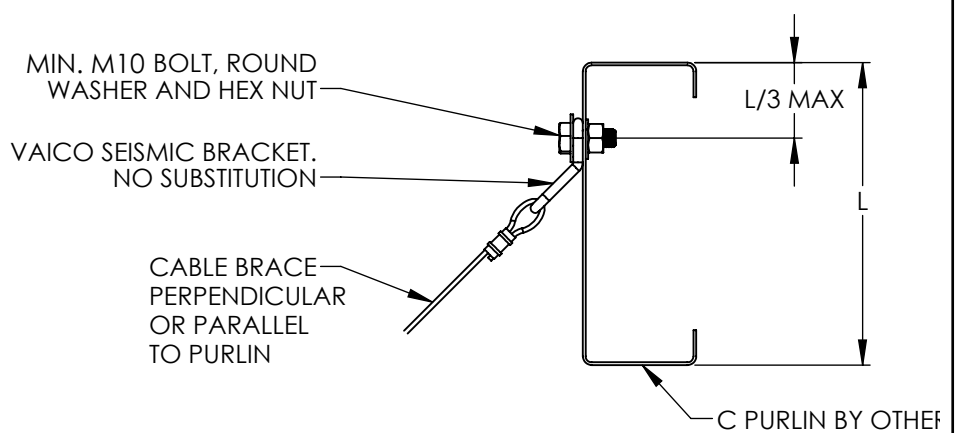
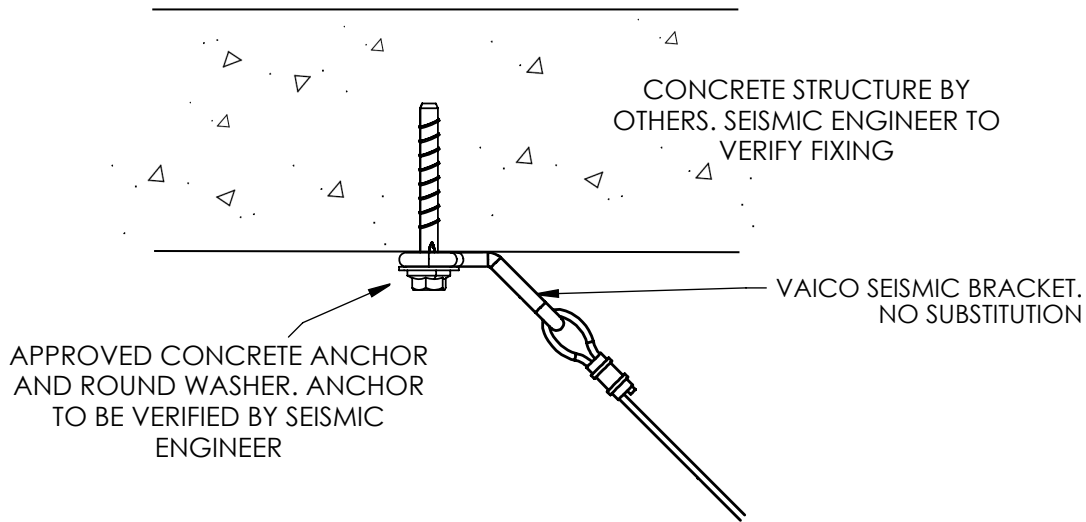
- PURLIN TENSILE STRENGTH,  $f_u = 320$  MPa MINIMUM
- PURLIN GRADE G250 MINIMUM, AS 1397
- MAXIMUM SIZE OF BOLT HOLE 14mm
- M12 TORQUE = 65Nm

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**BRP1**  
Brace Connection to C Purlin

Drawing No.  
**BRP1**  
Revision  
**B**

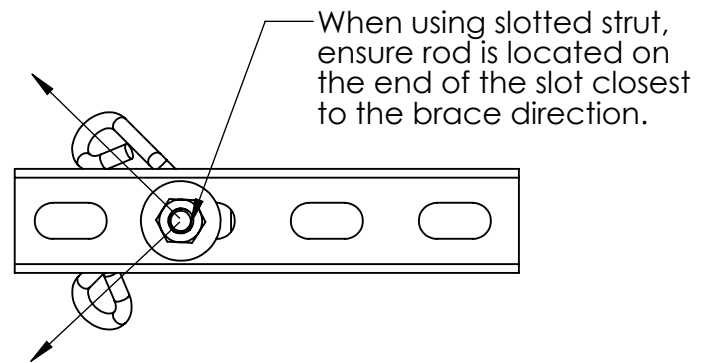
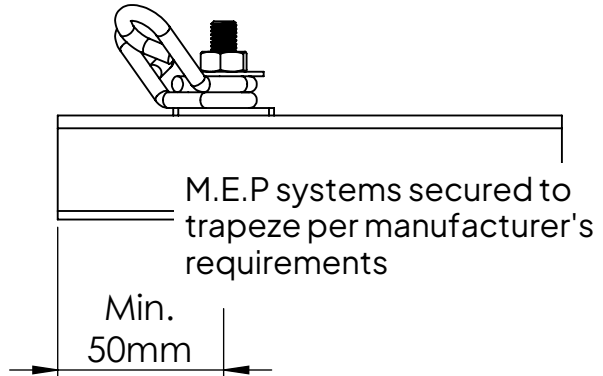
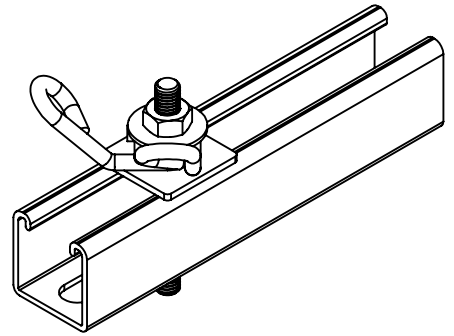
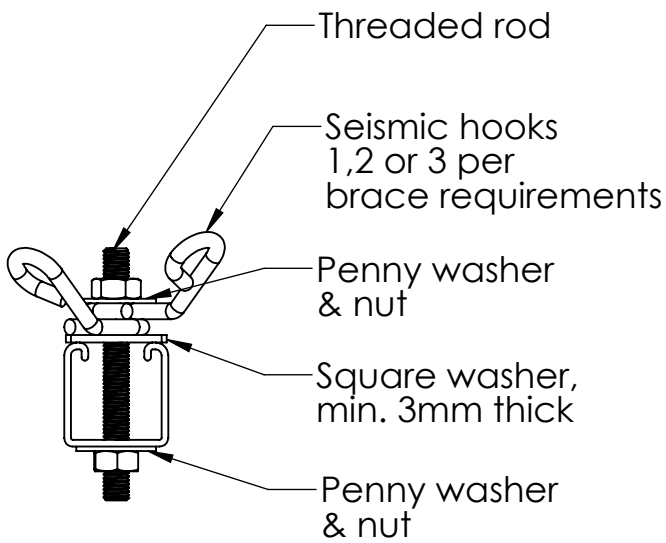


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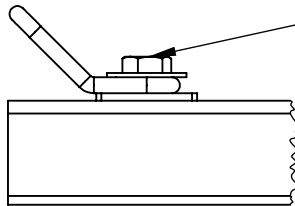
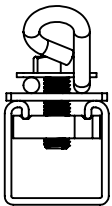
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**BRSC1**  
 Brace Connection To Structure

Drawing No.  
**BRSC1**  
 Revision  
**B**

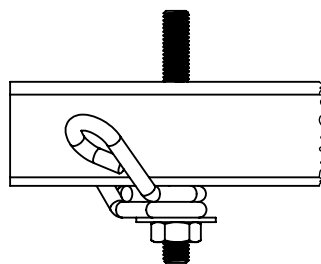
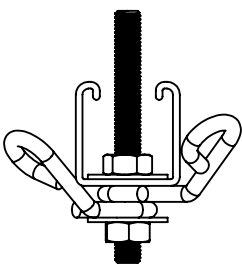


### Alternative connection methods



Min. M10 strut nut,  
penny washer & bolt  
torqued to min 26 Nm

This method is suitable for use with 1,  
2 or 3 hooks per brace requirements



This method is only suitable for use with a 4  
way transverse/longitudinal brace.  
Seismic hooks must be sequenced as shown  
to align at 45° angle

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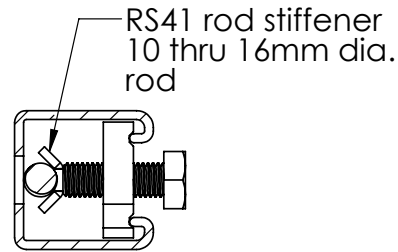
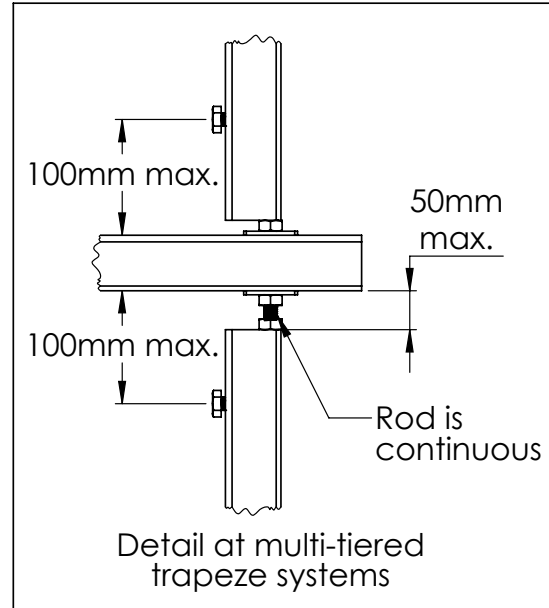
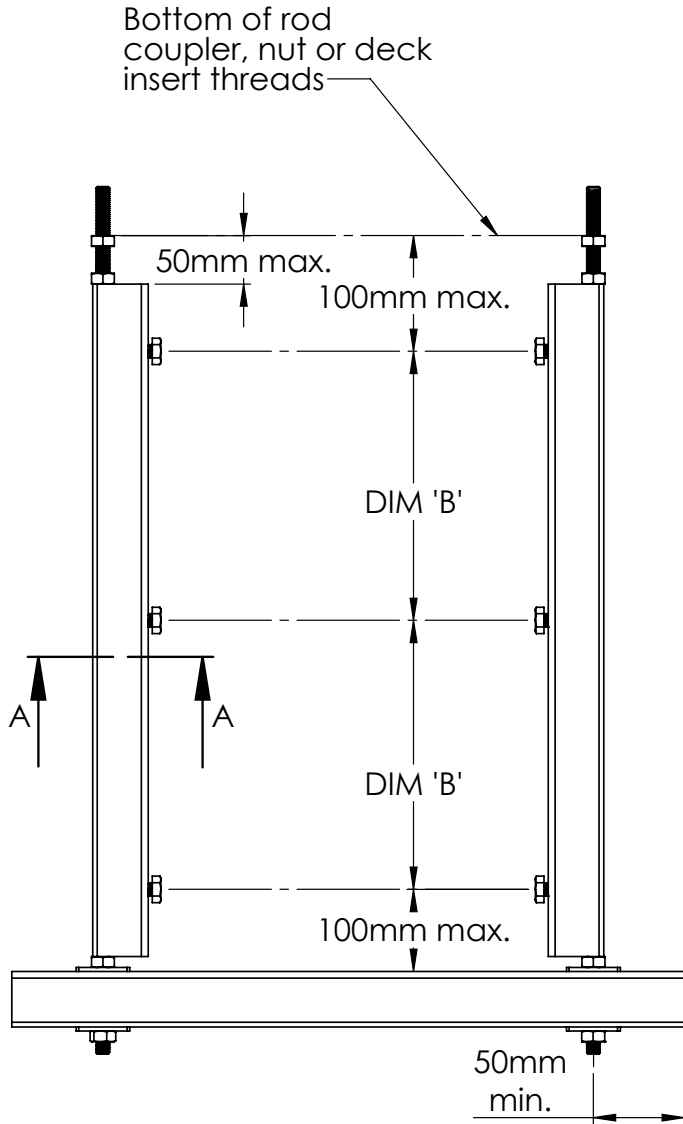
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**BRT1**  
Brace Connection Details

Drawing No.  
**BRT1**  
Revision  
**B**

**Why Rod Stiffeners are needed to meet AS1170.4-2007 Section 8 and NZS4219-2009**

1. Seismic forces act in all directions. Threaded rods are sized for gravity loads, making it necessary to add additional rod stiffening to prevent buckling of the rods.
2. Threaded rod has limited compression strength and uplift forces can easily exceed the dead load on the rod - resulting in compressive forces. If not stiffened, the rod can buckle and fail, which in turn can severely impact adjacent services and systems.
3. Rod stiffening essentially creates a compression post around the rod (or 'a leg in plaster' effect) that prevents buckling.
4. Rod stiffeners are only needed to be used on vertical hanger rods to which the seismic restraints are connected to, unless specifically noted otherwise.
5. Threaded rod is an integral part of any seismic restraint system and rod stiffening requirements should be included within any seismic design.



SECTION A-A

**Notes:**  
 Tighten stiffener nut to finger tight plus 2 full turns of the nut  
 Rod stiffening required only for rods to which seismic bracing has been installed.  
 Refer to Vaico when rods are larger than 16mm.  
 Rod stiffeners may be eliminated where two rigid braces are attached to the same rod and are 180 degrees opposed to one another.

Rod Stiffening Chart		
Threaded Rod Diameter (mm)	Dim. A Max. Rod Length Without Stiffener (mm)	Dim. B Max. Spacing Bet. Rod Stiffener (mm)
8	400	500
10	500	600
12	600	700
16	800	900

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<h2>GR1</h2> <p>Rod Stiffening Requirements</p>	Drawing No. <h3>GR1</h3>
	Revision <h3>B</h3>