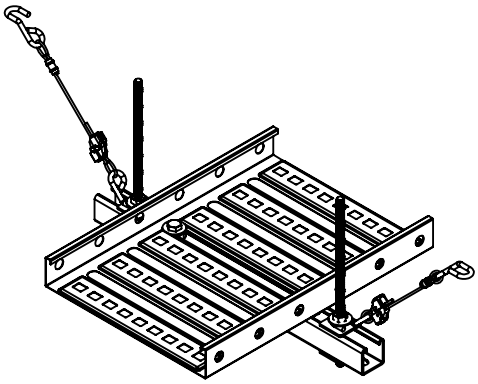
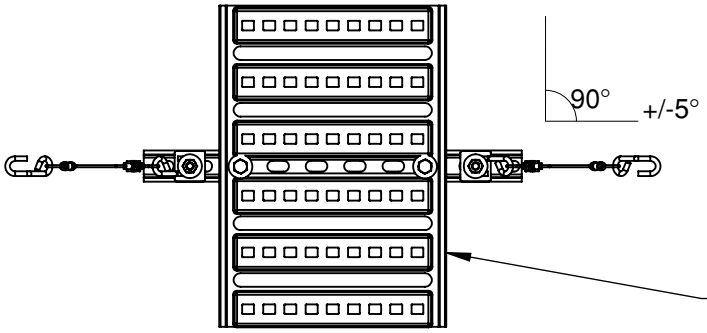
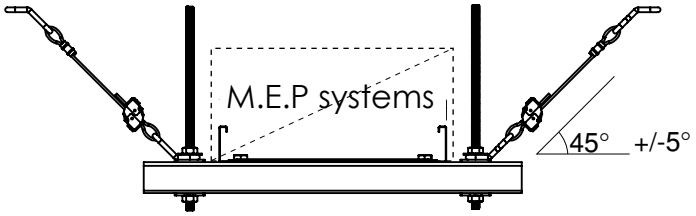
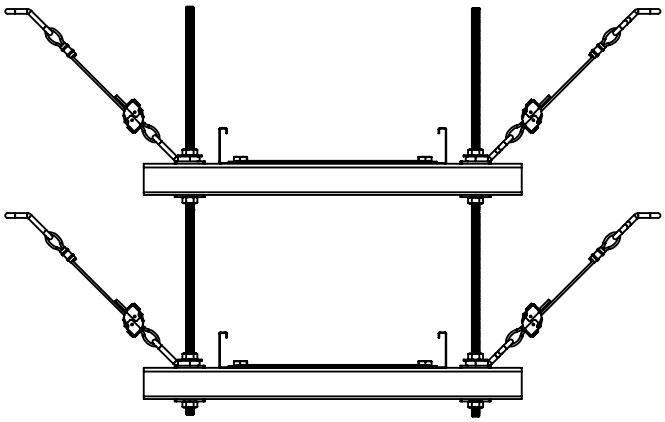




M.E.P systems secured to trapeze per manufacturer's requirements



Single layer trapeze



Multi layered trapeze

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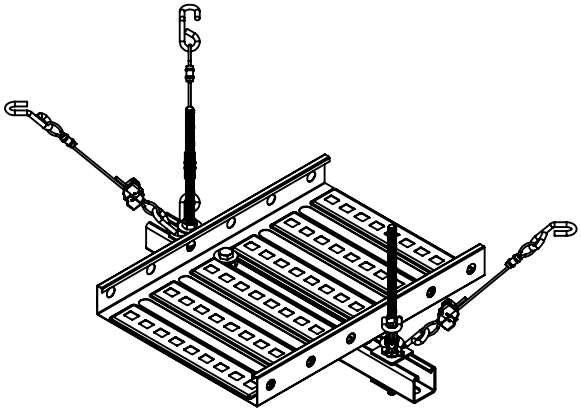
SCB.2W

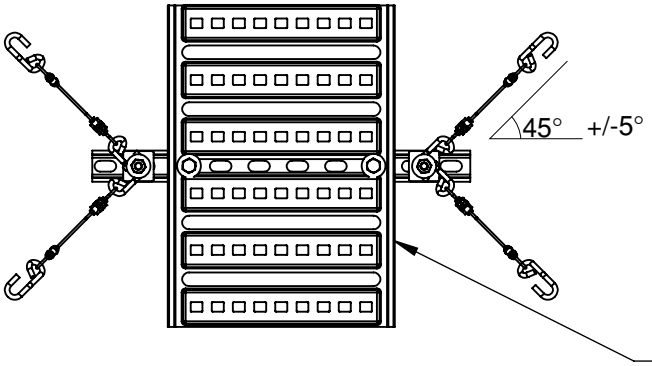
2 Way Transverse

Seismic cable brace installation

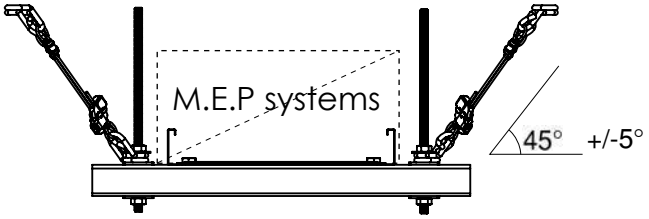
Drawing No.
SCB.2W

Revision
A

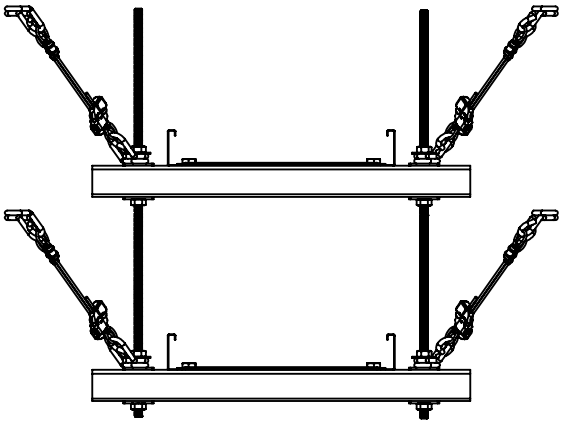




M.E.P systems secured to trapeze per manufacturer's requirements



Single layer trapeze



Multi layered trapeze

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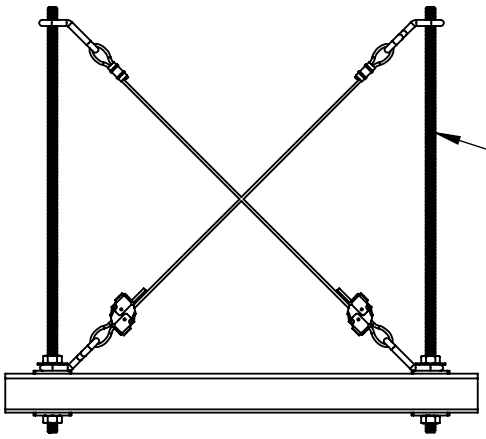
SCB.4W

4 Way Transverse, Longitudinal

Seismic cable brace installation

Drawing No.
SCB.4W

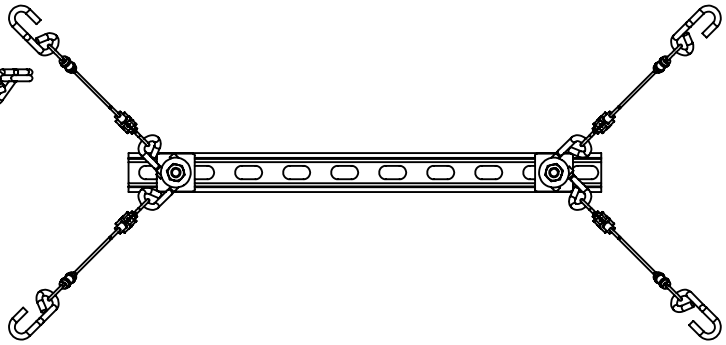
Revision
A



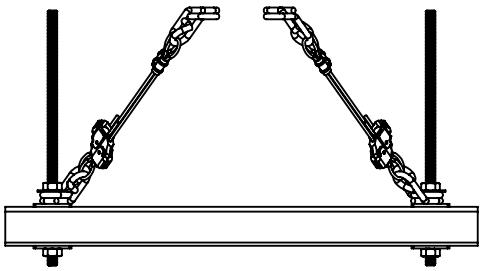
REFER TO VAICO FOR ANCHORAGE REVIEW PRIOR TO INSTALLATION

SECTION THRU TRAPEZE
ALTERNATE CABLE TRANSVERSE BRACE PATTERN

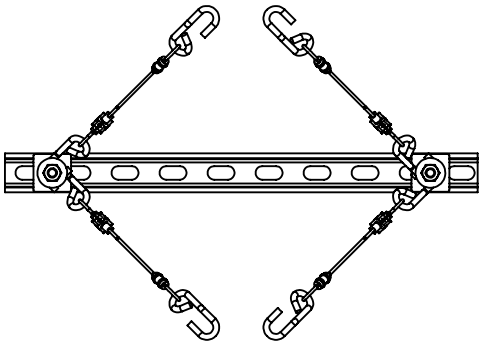




SECTION THRU TRAPEZE
STD. CABLE TRANSVERSE BRACE PATTERN



SECTION THRU TRAPEZE
ALTERNATIVE CABLE TRANSVERSE BRACE PATTERN



OVERHEAD VIEW
ALTERNATIVE SPLAYED CABLE BRACE PATTERN

ALTERNATE CABLE BRACE ARM PATTERNS TRAPEZE SUPPORTED SYSTEMS

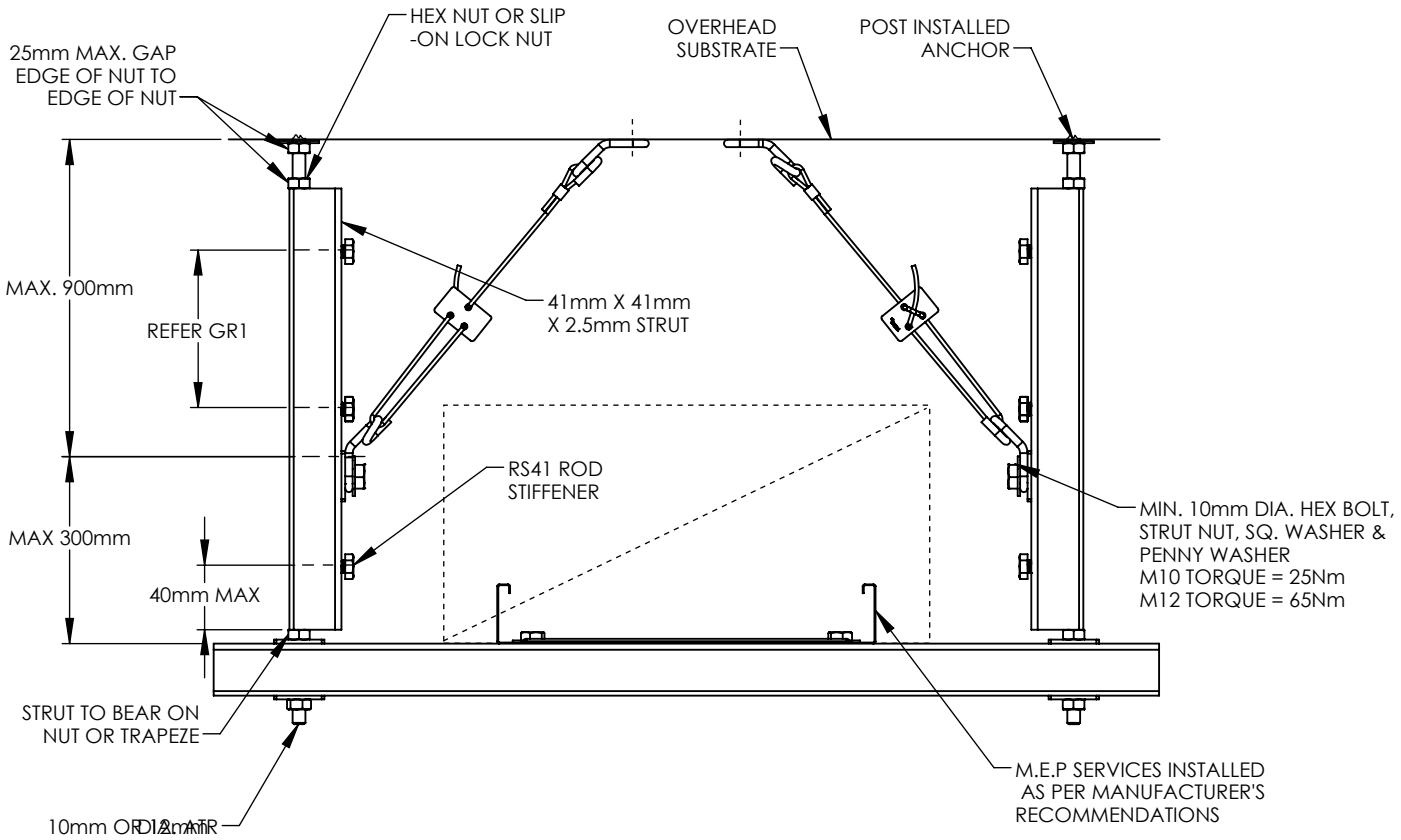
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BRT2
Alternate Cable Brace Arm
patterns trapeze supported systems

Drawing No.
BRT2

Revision
A



ELEVATED BRACE ARM ATTACHMENT - TRAPEZE RACKS

2 WAY OR 4 WAY CABLE BRACE

EXTERNAL & INTERNAL DIRECTIONS

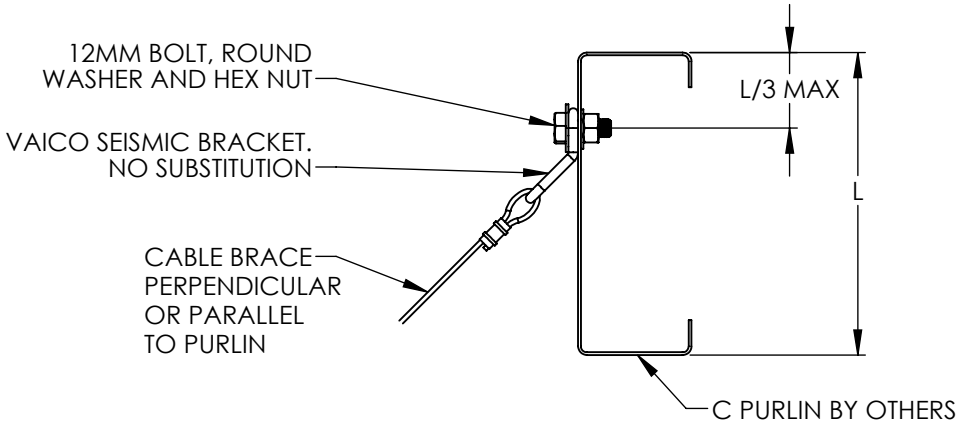
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BRE1

Elevated Brace Arm
attachement
Trapeze racks

Drawing No.
BRE1

Revision
C



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. PERPENDICULAR 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

BRACE TO C PURLIN

NOTES:
1. PURLIN TENSILE STRENGTH,fu = 320 MPa MINIMUM.
2. PURLIN GRADE G250 MINIMUM, AS 1397.
3. MAXIMUM SIZE OF BOLT HOLE 14mm.
4. M12 TORQUE = 65Nm

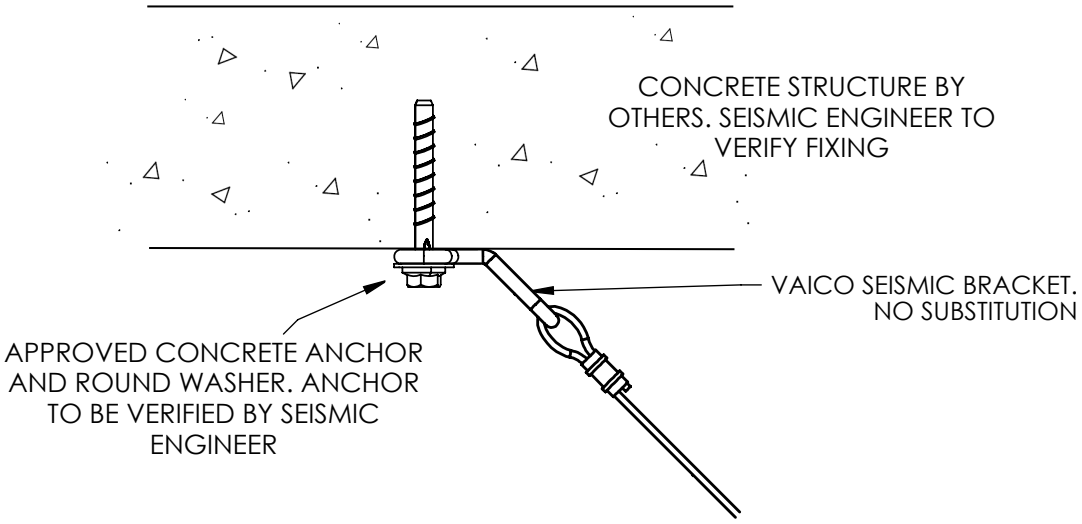
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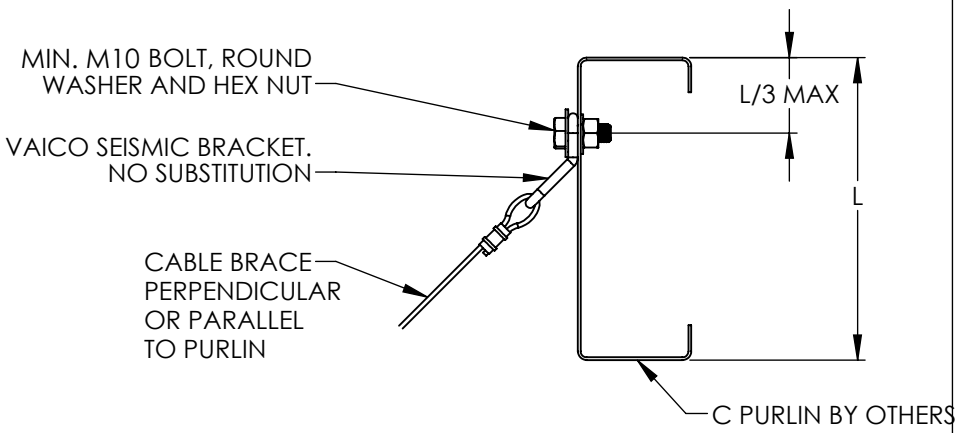
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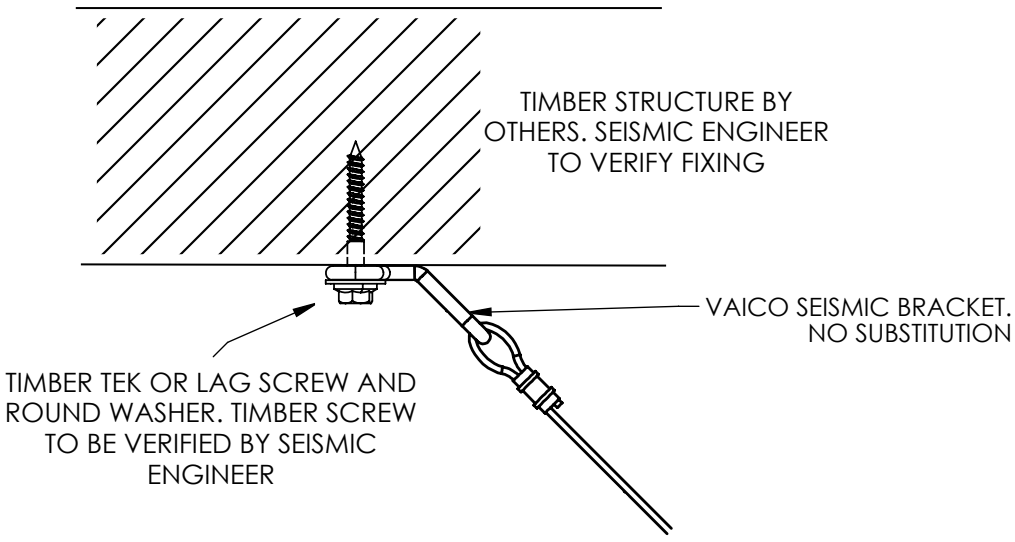
BRP1
Brace Connection to C Purlin

Drawing No.
BRP1

Revision
A







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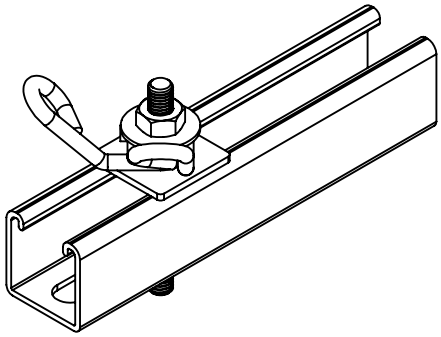
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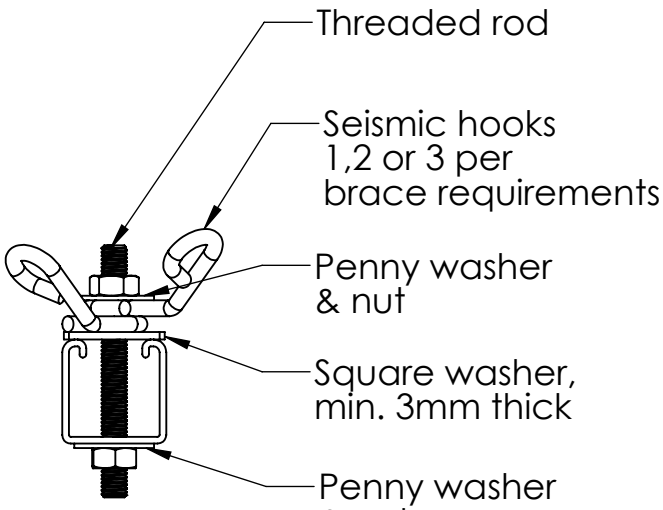
BRSC1

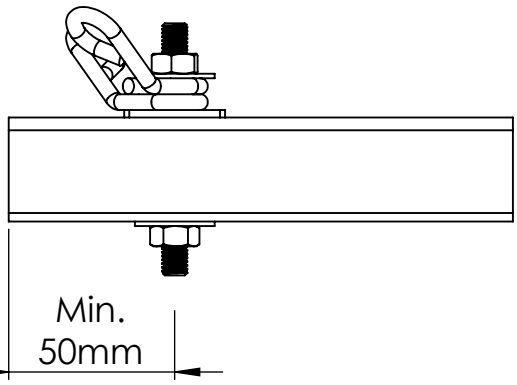
BRACE CONNECTION TO STRUCTURE

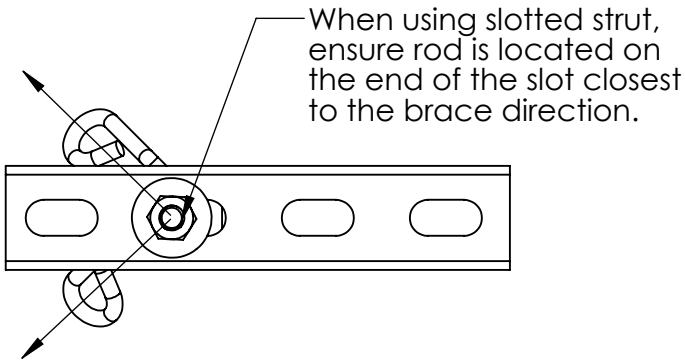
Drawing No.
BRSC1

Revision
A

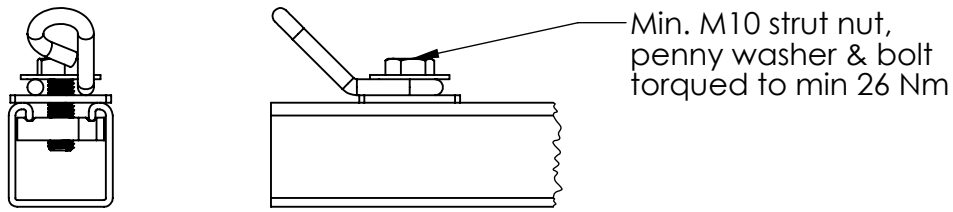




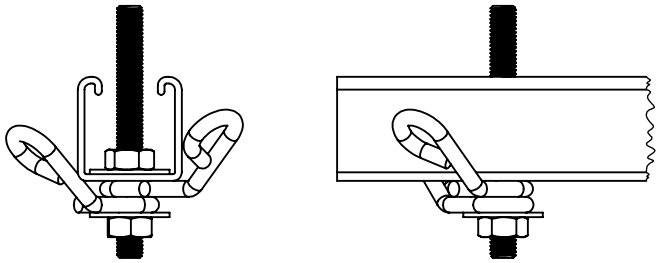




Alternative connection methods



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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09 October 2020

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BRT1

Brace Connection Details

Drawing No.
BRT1

Revision
A

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

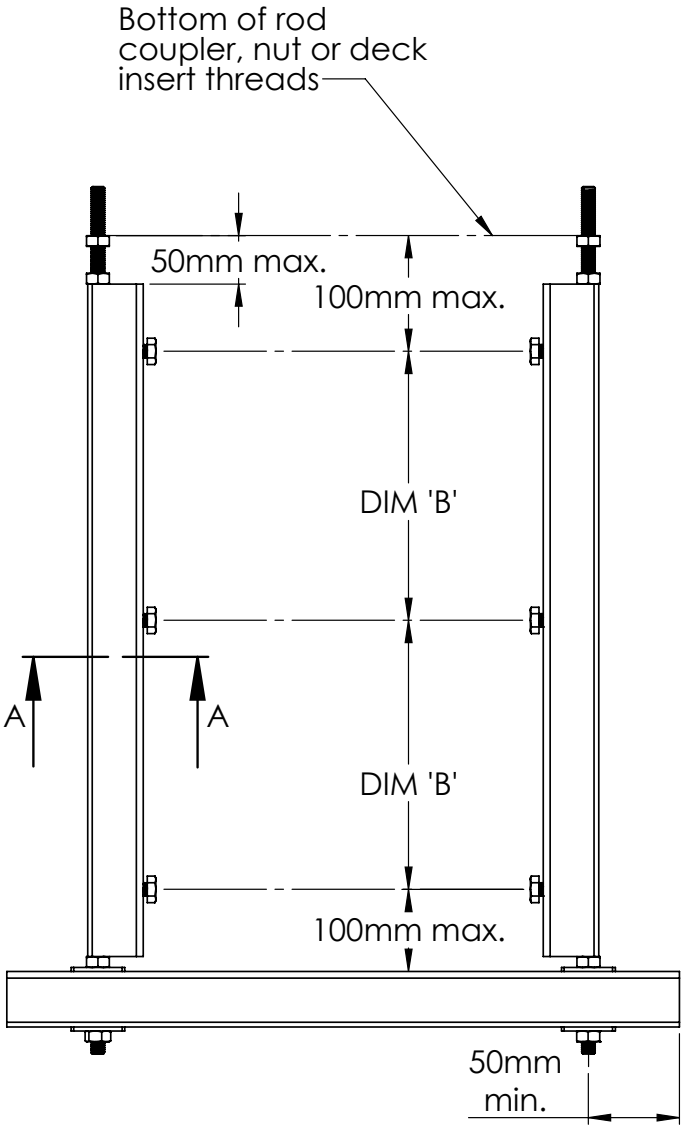
1. Seismic forces act in all directions. Threaded rods are sized for gravity loads, making it necessary to add additional rod stiffening to prevent buckling of the rods.

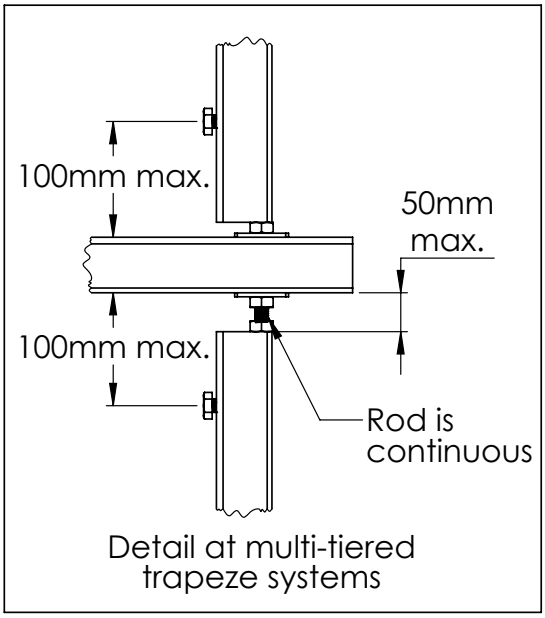
2. Threaded rod has limited compression strength and uplift forces can easily exceed the dead load on the rod - resulting in compressive forces. If not stiffened, the rod can buckle and fail, which in turn can severely impact adjacent services and systems.

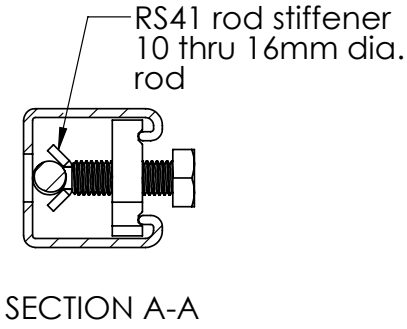
3. Rod stiffening essentially creates a compression post around the rod (or 'a leg in plaster' effect) that prevents buckling.

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.







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

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GR1
Rod stiffening requirements

Drawing No. GR1

Revision A