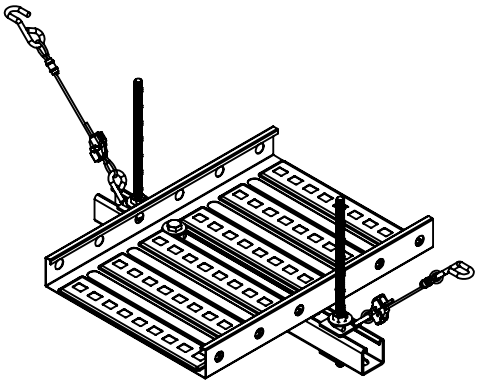
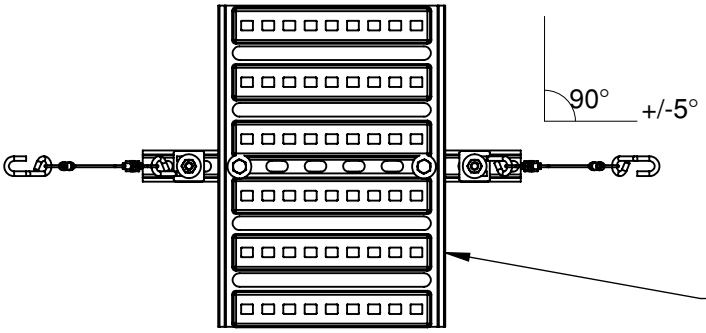
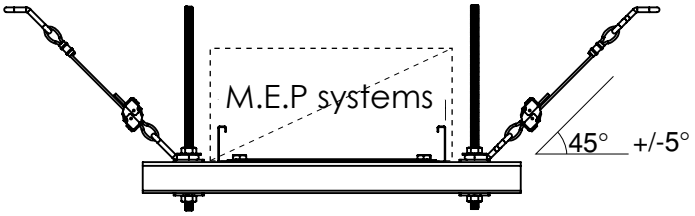
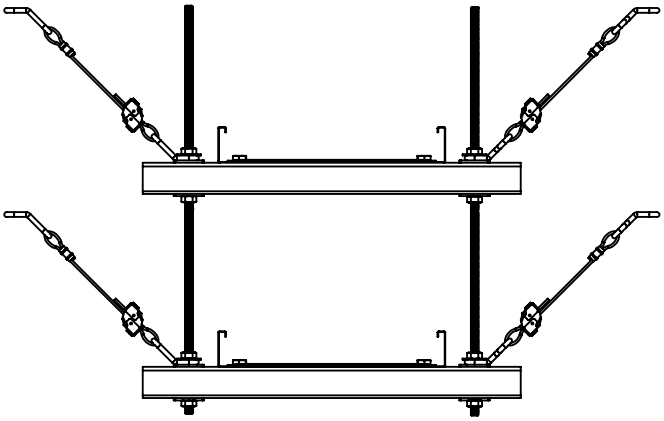




M.E.P systems secured to trapeze per manufacturer's requirements



Single layer trapeze



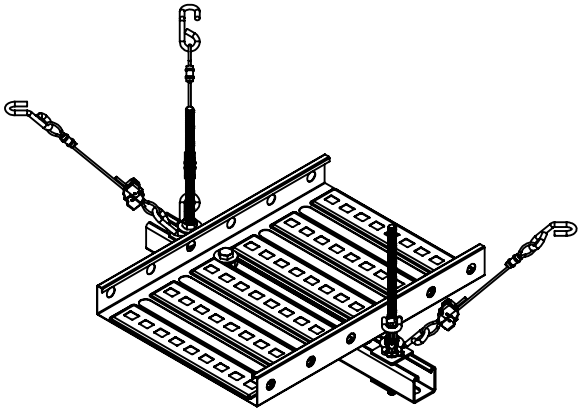
Multi layered trapeze

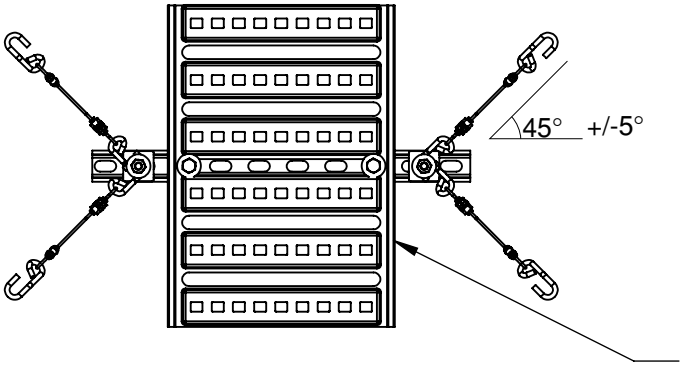
vaico
31 Whakapirau Road, Maungaturoto, New Zealand
vaicoglobal.com

SCB.2W
2 Way Transverse
Seismic Cable Brace Installation

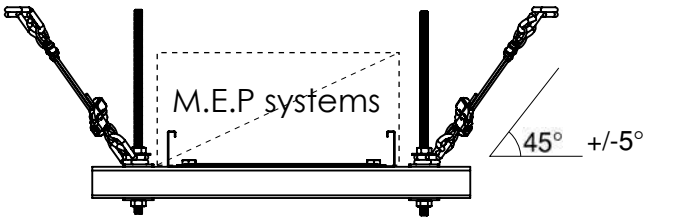
Drawing No.
SCB.2W

Revision
B

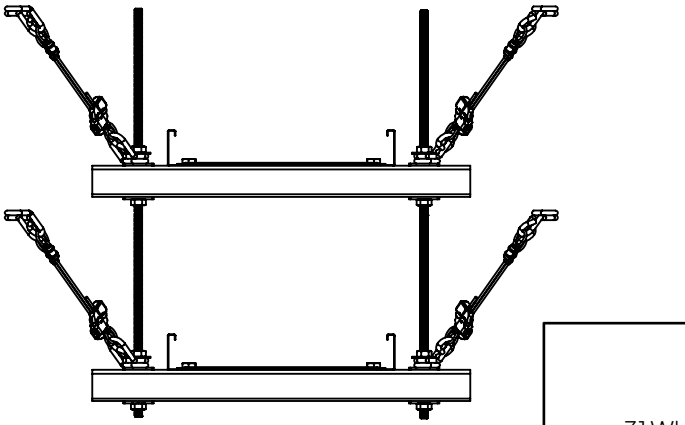




M.E.P systems secured to trapeze per manufacturer's requirements



Single layer trapeze



Multi layered trapeze

vaico

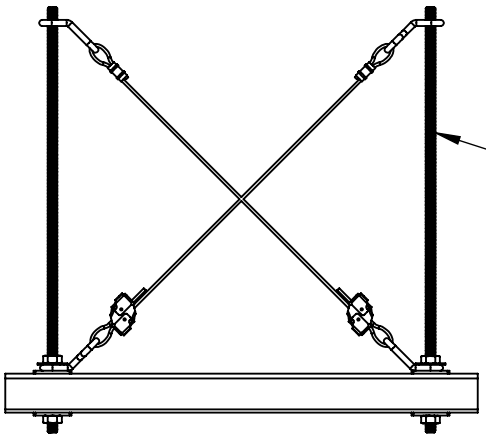
31 Whakapirau Road, Maungaturoto, New Zealand
vaicoglobal.com

SCB.4W

4 Way Transverse, Longitudinal
Seismic Cable Brace Installation

Drawing No.
SCB.4W

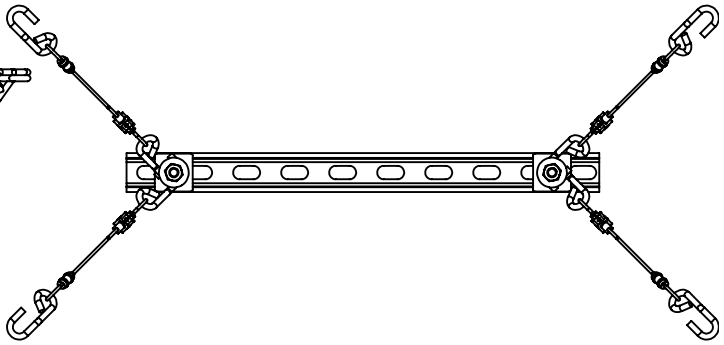
Revision
B

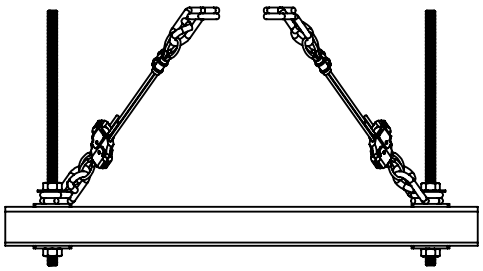


REFER TO VAICO
FOR ANCHORAGE
REVIEW PRIOR TO
INSTALLATION

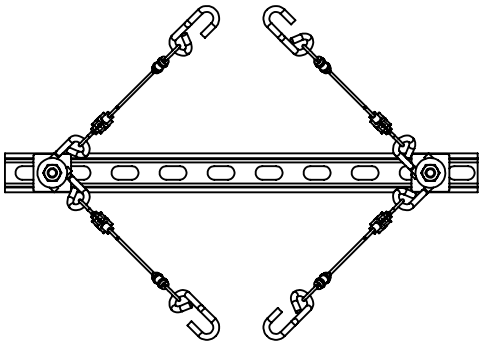
SECTION THRU TRAPEZE
ALTERNATE CABLE TRANSVERSE
BRACE PATTERN

SECTION THRU TRAPEZE
STD. CABLE TRANSVERSE BRACE
PATTERN





SECTION TRHU TRAPEZE
ALTERNATE CABLE TRANVERSE
BRACE PATTERN



OVERHEAD VIEW
ALTERNATE SPLAYED CABLE
BRACE PATTERN

vaico

31 Whakapirau Road, Maungaturoto, New Zealand
vaicoglobal.com

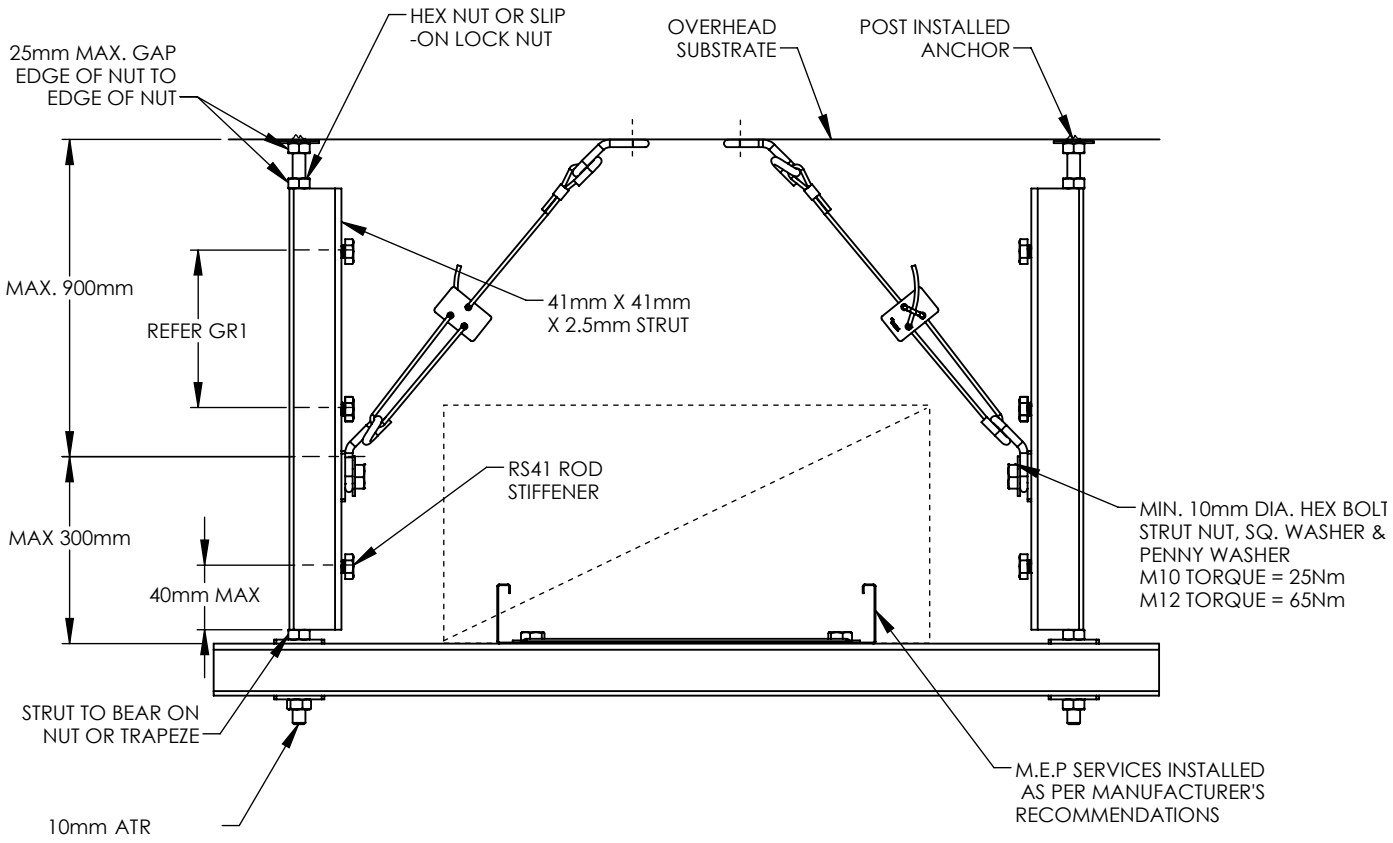
BRT2

Alternate Cable Brace Arm

Patterns Trapeze Supported Systems

Drawing No.
BRT2

Revision
B



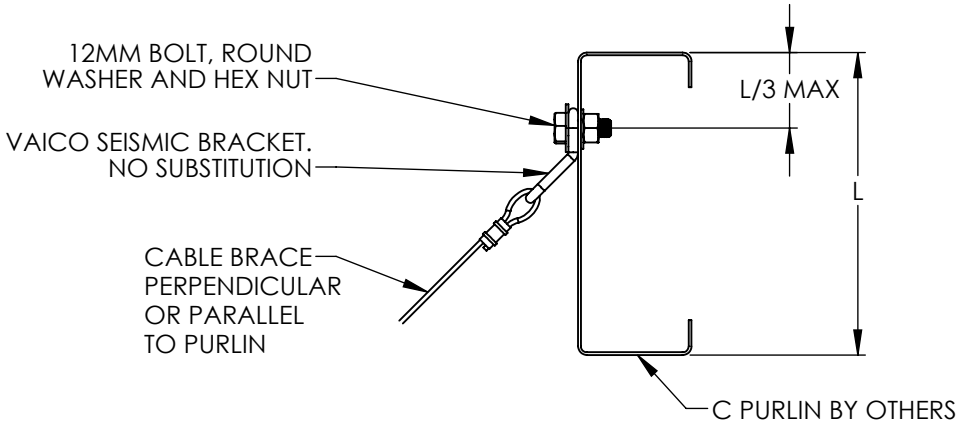
ELEVATED BRACE ARM ATTACHMENT - TRAPEZE RACKS

2 WAY OR 4 WAY CABLE BRACES

EXTERNAL & INTERNAL DIRECTIONS

vaico
31 Whakapirau Road, Maungaturoto, New Zealand
vaicoglobal.com

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

BRACE TO C PURLIN

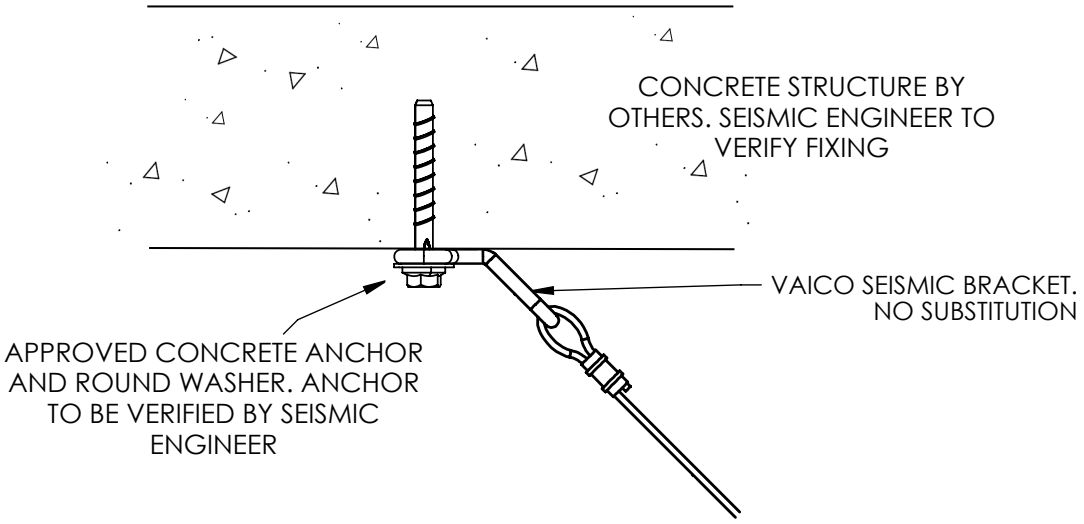
NOTES:
1. PURLIN TENSILE STRENGTH,
   fu = 320 MPa MINIMUM
2. PURLIN GRADE G250 MINIMUM, AS 1397
3. MAXIMUM SIZE OF BOLT HOLE 14mm
4. M12 TORQUE = 65Nm

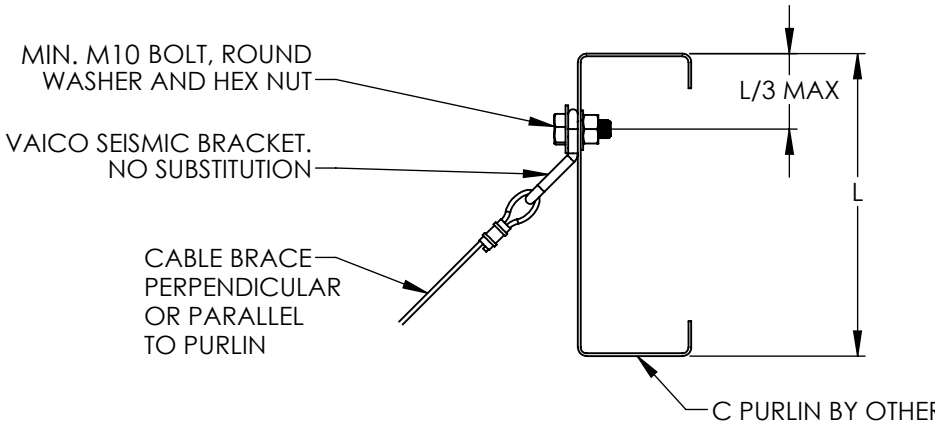
vaico
31 Whakapirau Road, Maungaturoto, New Zealand
vaicoglobal.com

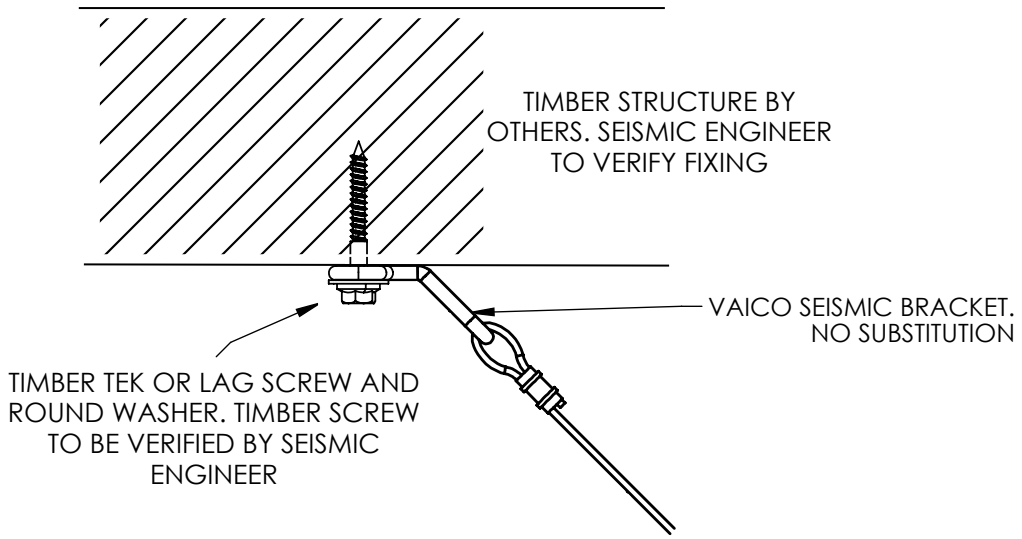
BRP1
Brace Connection to C Purlin

Drawing No.
BRP1

Revision
B







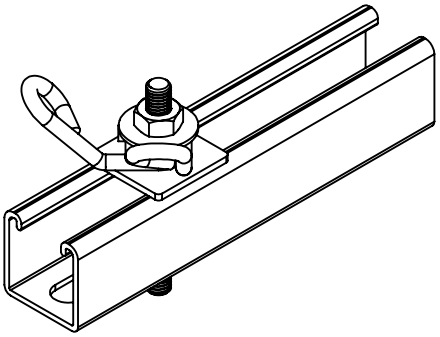
vaico

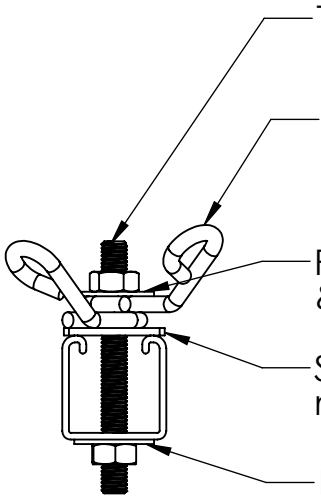
31 Whakapirau Road, Maungaturoto, New Zealand
vaicoglobal.com

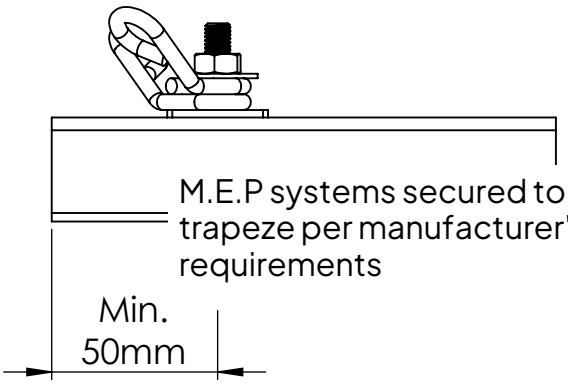
BRSC1
Brace Connection To Structure

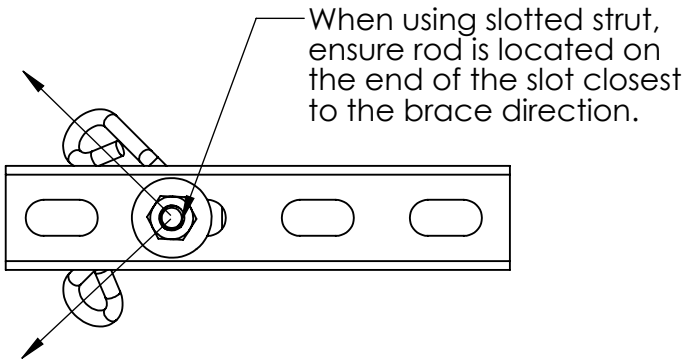
Drawing No.
BRSC1

Revision
B

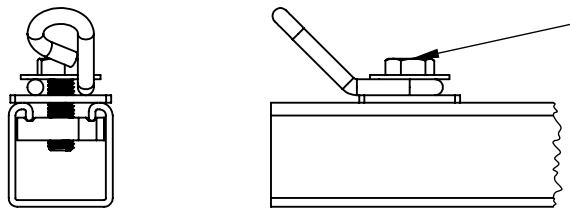




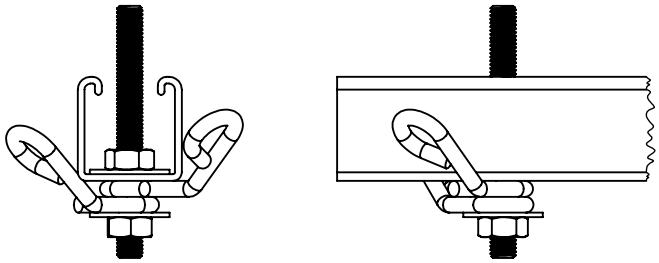




Alternative connection methods



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

vaico

31 Whakapirau Road, Maungaturoto, New Zealand
vaicoglobal.com

BRT1
Brace Connection Details

Drawing No.
BRT1

Revision
B

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

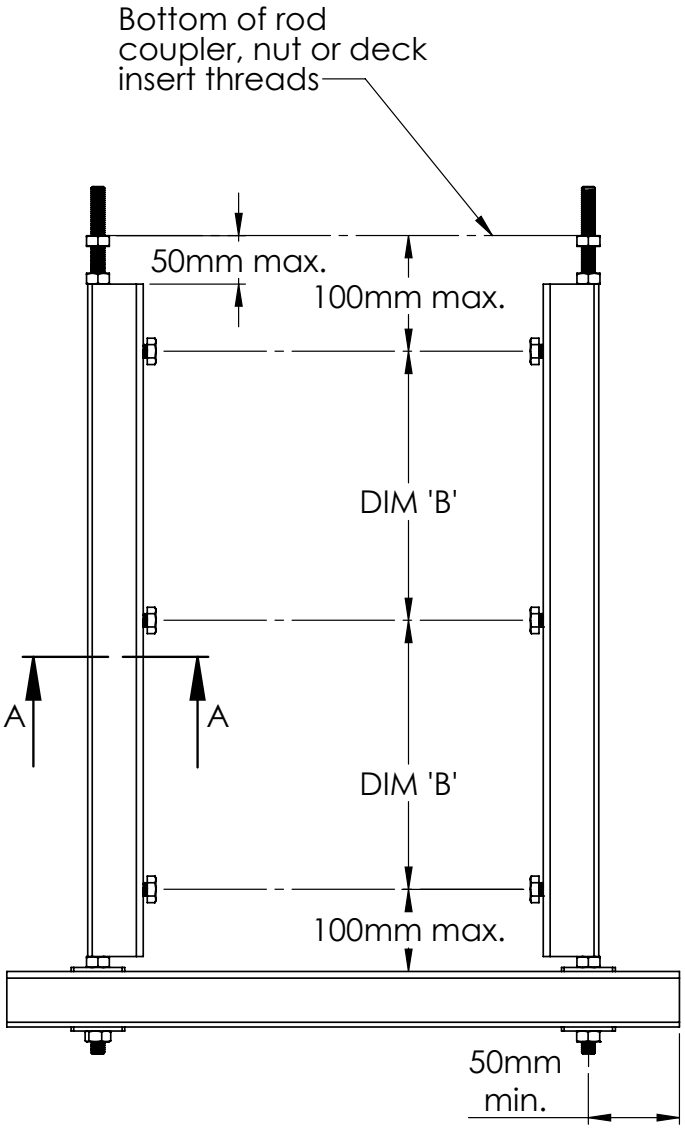
1. Seismic forces act in all directions. Threaded rods are sized for gravity loads, making it necessary to add additional rod stiffening to prevent buckling of the rods.

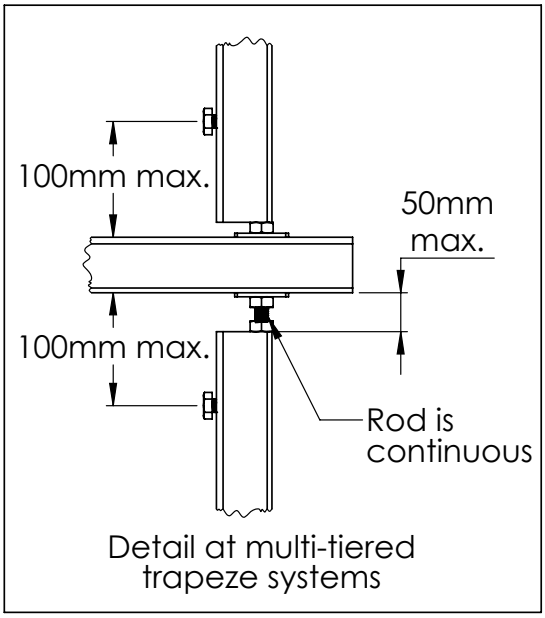
2. Threaded rod has limited compression strength and uplift forces can easily exceed the dead load on the rod - resulting in compressive forces. If not stiffened, the rod can buckle and fail, which in turn can severely impact adjacent services and systems.

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

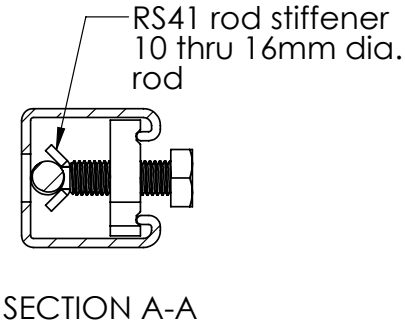
4. Rod stiffeners are only needed to be used on vertical hanger rods to which the seismic restraints are connected to, unless specifically noted otherwise.

5. Threaded rod is an integral part of any seismic restraint system and rod stiffening requirements should be included within any seismic design.





Detail at multi-tiered trapeze systems



SECTION A-A

lotes:
ghten stiffener nut to finger tight plus 2 full turns of the nut
od stiffening required only for rods to which seismic bracing has been installed.
efer to Vaico when rods are larger than 16mm.
od stiffeners may be eliminated where two rigid braces are attached to the ame 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

vaico
31 Whakapirau Road, Maungaturoto, New Zealand
vaicoglobal.com

GR1
Rod Stiffening Requirements

Drawing No.
GR1

Revision
B