VUETRADE for the builder

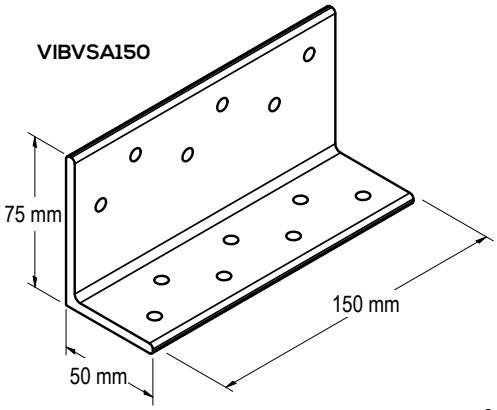
Timber Connectors
Technical Data Sheet

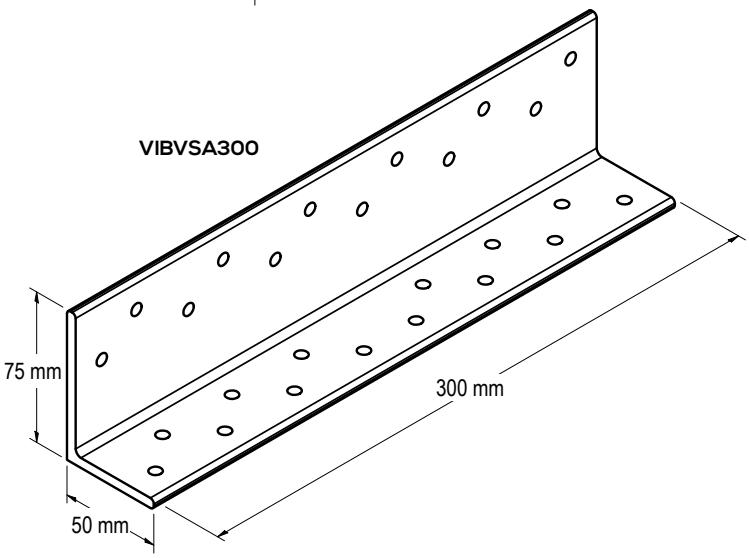
GALVANISED I-BEAM VARIABLE SKEW ANGLE

JUL24

Compliant with the requirements of AS1684 and AS1720.
Designed and tested to AS1649.

G GALVANISED





APPLICATION

The VUETRADE I-Beam Variable Skew Angle is a universal connector commonly used for timber truss connections where beams or trusses are coming in at an angle to the beam or girder truss. They can also be used as a heavy duty right angle whereby the bracket is used vertically and at a 90 degree angle.

SPECIFICATION

VUETRADE I-Beam Variable Skew Angles are manufactured from 5mm thick hot-dipped galvanised steel and have 6.0mm Ø wide countersunk holes.

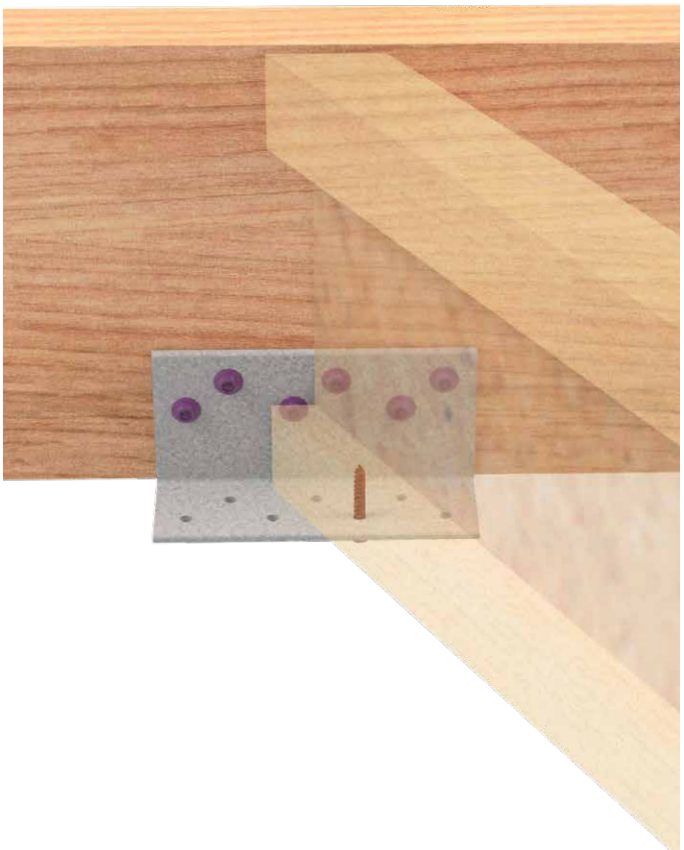
FASTENERS

Screws: VUETRADE Type 17 12G x 35mm screws

Uplift Screw: 1x VUETRADE Type 17 12G x 35mm screw

SIZES

Product Code	Nominal Size (mm)	Box Qty
VIBVSA150	150 x 50 x 75	10
VIBVSA300	300 x 50 x 75	10



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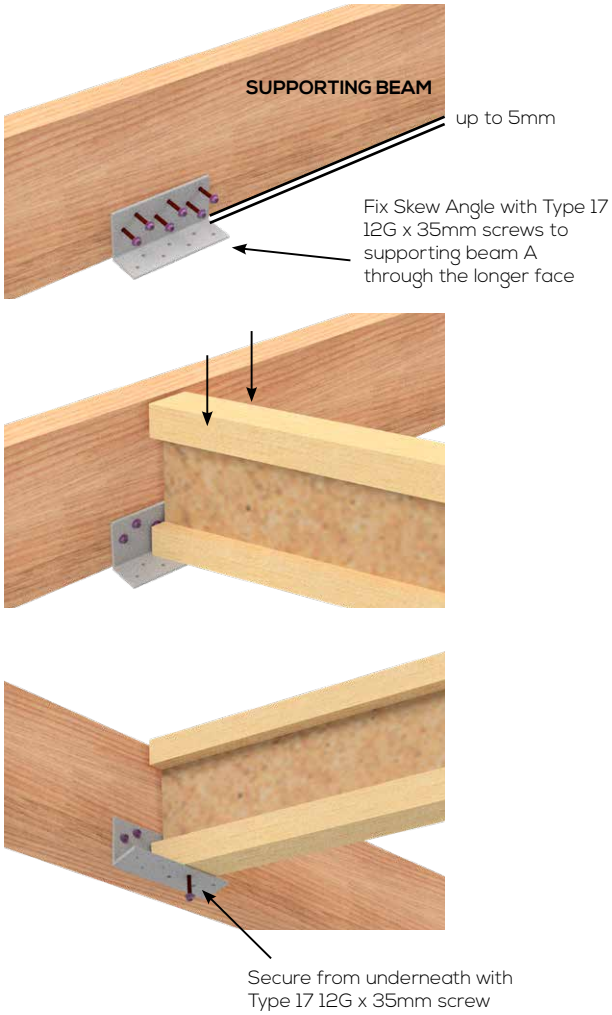
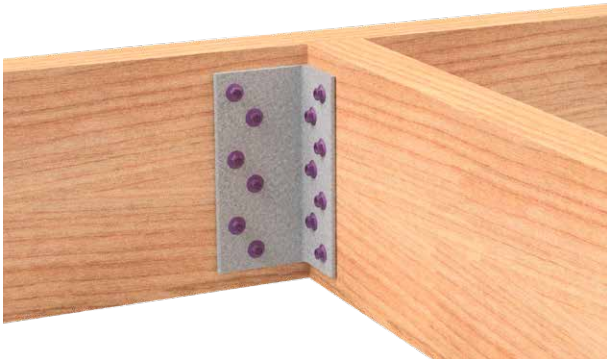
INSTALLATION GUIDE

METHOD 1: SKEW ANGLE SUPPORT



1. Refer to installation instructions or the approved method by consulting project engineer.
2. Align the bracket centrally along the marked location so that the longer face is placed against the supporting beam. The bracket can be set up to 5mm below the bottom edge of the supporting beam.
3. Install VUETRADE Type 17 12G x 35mm screws through all holes on the longer face of the bracket to fix to the supporting beam.
4. Sit the supported beam as far into the bracket as possible.
5. Install 1x VUETRADE Type 17 12G x 35mm from below into the supported beam.

METHOD 2: VERTICAL RIGHT ANGLE SUPPORT



1. Refer to installation instructions or the approved method by consulting project engineer.
2. Place supported beam flush to the supporting beam and install with screws.
   VIBVSA150 - minimum 6 screws per side,
   and VIBVSA300 - minimum 12 screws per side.

INSTALLATION NOTES FOR BOTH METHODS:

To resist twisting of the supporting beam, use screws through the back of the supporting beam into the end-grain of the supported beam.

Hardwood timbers should have screw holes pre-drilled to avoid timber splitting.

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DESIGN CAPACITY DATA

Table 1: Design Capacity data for Method 1 when the I-Beam Variable Skew Angle is also secured from below with Uplift Screw

Sizes	Number of Screw Fixings on Supporting Beam	Type of load	Joint Group		
			JD3	JD4	JD5
150mm	6	Dead Load	9.5	6.8	4.8
		Dead Load + Floor Live Load	11.6	8.2	5.8
		Dead Load + Roof Live Load	12.9	9.1	6.5
		Dead Load + Wind Load	1.8	1.4	1.1
300mm	12	Dead Load	19.1	13.5	9.6
		Dead Load + Floor Live Load	23.1	16.4	11.6
		Dead Load + Roof Live Load	25.8	18.3	12.9
		Dead Load + Wind Load	1.8	1.4	1.1

Table 2: Design Capacity data for Method 2 when the I-Beam Variable Skew Angle is installed as a vertical right angle support

Sizes	Number of Screw Fixings on Each Beam	Type of load	Joint Group		
			JD3	JD4	JD5
150mm	6	Dead Load	6.7	4.7	3.4
		Dead Load + Floor Live Load	8.1	5.7	4.1
		Dead Load + Roof Live Load	9.0	6.4	4.5
		Dead Load + Wind Load	13.4	9.5	6.7
300mm	12	Dead Load	12.6	8.9	6.3
		Dead Load + Floor Live Load	15.3	10.8	7.7
		Dead Load + Roof Live Load	17.1	12.1	8.6
		Dead Load + Wind Load	25.2	17.9	12.7

NOTES:

- Modification factors k1 for different load cases in the design capacities of Table 1 are adopted from AS1720.1-2010.
- Design capacities in Table 1 are based on Category 1 joints where it is applicable for failures that would be unlikely to affect an area of greater than 25m2. For Category 2 and Category 3 joints, design capacities from the table are multiplied by 0.941 and 0.882 respectively.
- Capacity in Table 2 may be doubled when a pair of brackets are being used. At no condition brackets should exceed 40kN in loading in any direction.

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