VUETRADE for the builder

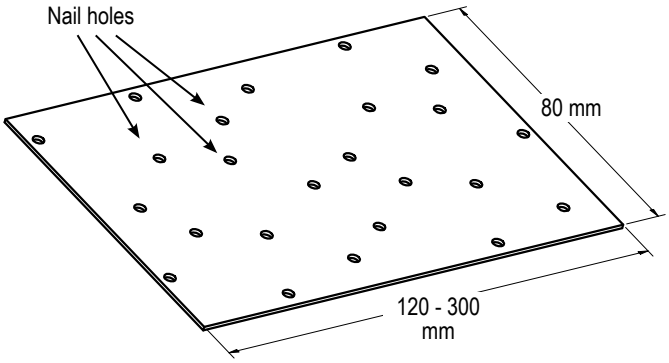
Timber Connectors
Technical Data Sheet

STAINLESS STEEL NAIL ON BEARER PLATES

JUN23

Compliant with the requirements of AS1684.

316 STAINLESS STEEL



APPLICATION

VUETRADE Bearer Plates are manufactured as a flat steel plate which are then fixed with flat head nails or screws. The plates are suitable for a range of construction applications such as:

- Joining timber by butting members together (for spliced joint connection Bearer Plates must be used in pairs);
- An alternative for heavy duty connection where a tap in plate will not offer adequate strength;
- Framework repair;
- Member or joint reinforcement works.

SPECIFICATION

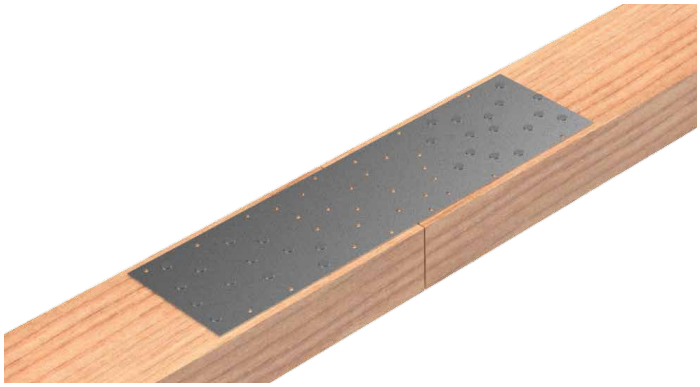
VUETRADE Stainless Steel Bearer Plates are manufactured with Stainless Steel 316 material in 1.0mm thickness.

FASTENERS

Nails: Use only VUETRADE 30mm x 2.8mm Ø Stainless Steel Connector Plate Nails

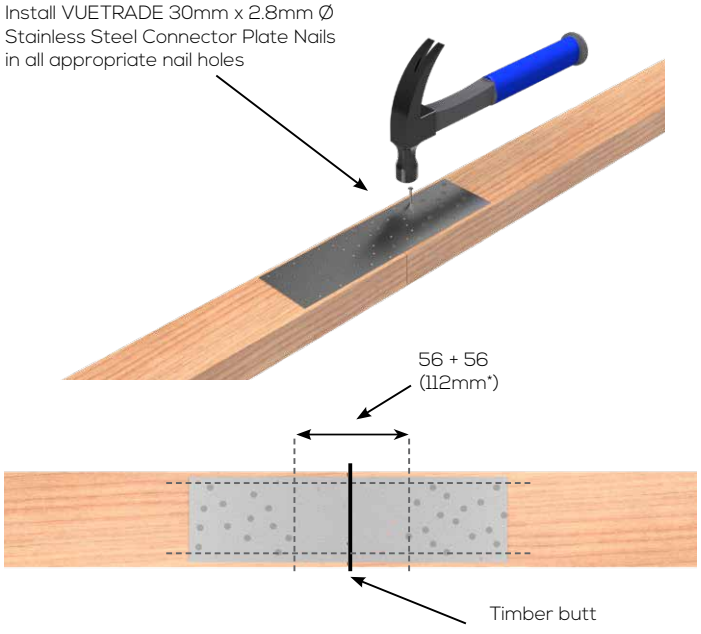
SIZES

Product Code	Size (mm)	Box Qty	Number of holes per plate
VTBP80120SS	80 x 120	100	24
VTBP80180SS	80 x 180	100	36
VTBP80240SS	80 x 240	50	48
VTBP80300SS	80 x 300	50	60



INSTALLATION GUIDE

1. Install VUETRADE Stainless Steel Bearer Plate to joint by driving VUETRADE 30mm x 2.8mm Ø Stainless Steel Connector Plate Nails with a hammer. Use only stainless steel connector plate nails with Stainless Steel Bearer Plate, usage of galvanised nails with stainless steel Bearer Plate may cause bimetallic corrosion which will weaken the timber joint.
2. Ensure that nails are driven in all appropriate nail holes to ensure product compliancy and maximum load obtained.
3. Ensure that no nails driven within 56mm of the timber butt end and 14mm to the timber edge.
4. For application of butt jointing, ensure that the Bearer Plates are installed with equal length in the timber member (symmetrically) and fix one plate on each face of the timber member.



* No nails should be driven within 56mm from timber butt end or within 14mm to the timber edge to reduce risk of timber splitting.

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DESIGN CAPACITY DATA

Table 1: Design capacities for a pair of Stainless Steel Bearer Plates of 80mm width at various lengths

Length	Type of Load	Design Capacity for Timber Joint Groups, kN					
		J3	J4	J5	JD3	JD4	JD5
120mm	Dead Load	See note 4(c)					
	Dead Load + Roof Live Load						
	Dead Load + Wind Load						
180mm	Dead Load	4.6	3.3	2.5	6.5	4.6	3.8
	Dead Load + Roof Live Load	6.3	4.4	3.3	8.8	6.3	5.1
	Dead Load + Wind Load	9.3	6.6	5.0	13	9.3	7.6
240mm	Dead Load	9.8	6.9	5.2	13.7	9.8	8.1
	Dead Load + Roof Live Load	13.3	9.4	7.1	18.6	13.3	10.9
	Dead Load + Wind Load	19.7	13.9	10.5	27.5	19.7	16.1
300mm	Dead Load	12.4	8.8	6.6	17.3	12.4	10.2
	Dead Load + Roof Live Load	16.7	11.8	8.9	23.4	16.7	13.7
	Dead Load + Wind Load	24.8	17.5	13.2	34.6	24.8	20.3

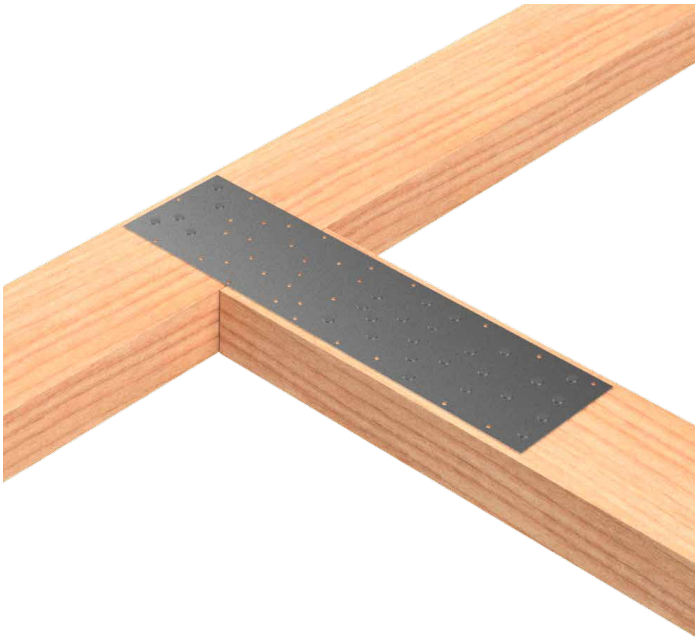
NOTES:

1. Design capacities in Table 1 are for a pair of plates.
2. The duration factor k1 used to derive the values above are 0.57 for dead loads, 0.77 for combination of dead load and roof live load and 1.14 for combination of dead load and wind load. Modification factors k1 for different load cases are adopted from AS1720.1-2010.
3. Design capacities in the table 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.
4. Capacities obtained above are based on the following criteria:

    a. Nail holes within 56mm from the timber end are not fixed, otherwise all holes must be fixed with VUETRADE 30mm x 2.8mm Ø Stainless Steel Connector Plate Nails.

    b. The timber end / edge distance of 56mm / 14mm according to AS1720.1-2010 shall not have any nail fixed to the timber.

    c. 80 x 120mm Bearer Plates are not recommended to be used for splice joint connection as it does not meet AS1720.1-2010 end-distance requirements of no nails shall be installed 56mm from the timber end.



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