ХVUEIRADE.
for the builder

Timber Connectors Technical Data Sheet

Compliant with the requir
of $\mathrm{AS1684}$ and $\mathrm{AS172O}$.


## APPLICATION

VUETRADE Tap In Plates are useful for various application such as:

- Joining various timber wall frames and top plates together;
- Use in manufacturing trusses;
- Joining ends of timber;
- Timber ends repair.


## SPECIFICATION

VUETRADE Stainless Steel Tap In Plates are manufactured in 1.2 mm stainless steel 316 to a wide range of sizes to suit different sizes of timber and applications.

Stainless Steel 316 has a better corrosion resistance property compared to Stainless Steel 304. The typical material composition contains $2 \%$ molybdenum that is not present in SS304, which provides superior corrosion protection compared to SS304. SS316 is suitable for environment with higher risk of corrosion attack, for example sea water and brine solution.

## SIZES

| Product Code | Size (mm) | Box Qty | No. of teeth <br> per plate |
| :---: | :---: | :---: | :---: |
| VTP45120SS | $45 \times 120$ | 100 | 24 |
| VTP45180SS | $45 \times 180$ | 67 | 36 |
| VTP70120SS | $70 \times 120$ | 75 | 36 |
| VTP70180SS | $70 \times 180$ | 50 | 54 |

## INSTALLATION GUIDE

Install VUETRADE Tap In Plate by driving each of the teeth on the Stainless Steel Tap In Plate into the both timber joint members using a hammer. For application of butt jointing, ensure that the Tap In Plate 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 12 mm from timber butt end or within 6mm to the timber edge to reduce risk of timber splitting.


## DESIGN CAPACITY DATA

The method of obtaining design capacities for VUETRADE Stainless Steel Tap In Plates was derived based on the test method established from Australian Standard AS1649-2001 Timber - Methods of test for mechanical fasteners and connectors - Basic working loads and characteristic strengths. The loads of standard timber joint groups shown in this document are defined based on the Australian Standard AS1720.1-2010 Timber structures, Part 1: Design methods. Refer to VUETRADE's Timber Properties Technical Data for the classification of joint groups for various timber species.

Table 1: Design capacities of Stainless Steel Tap In Plates

| Design Load Capacity (N/tooth) for Timber Joint Group: JD4 |  |  |
| :---: | :---: | :---: |
| Load Direction | Perpendicular | Parallel |
| Dead Load | 125 | 127 |
| Dead Load + Roof Live Load | 169 | 172 |
| Dead Load + Wind Load | 250 | 255 |

## NOTES:

l. The duration factor kl 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 kl for different load cases are adopted from AS1720.1-2010.
2. Design capacities in the tables are based on Category 1 joints where it is applicable for failures that would be unlikely to affect an area of greater than 25 m 2 . For Category 2 and Category 3 joints, design capacities from the table are multiplied by 0.941 and 0.882 respectively.
3. The design of timber joints as specified in the Australian Standard AS1649-2001 states that teeth driven 12 mm to the butt end and 6 mm to the timber edges are ineffective (refer to illustration on previous page). VUETRADE SS Tap In Plates teeth are manufactured 30 mm apart which means that all teeth deliver effective loading.


