**DTT Deck Tension Ties**

The DTT1Z and DTT2Z tension ties are safe, cost-effective connectors designed to help build stronger, safer decks that meet or exceed code requirements. The DTT1 is an easy-to-install method to provide a lateral-load connection between the deck and the adjacent structure. The DTT2 can be used for the lateral-load connection as well, but is ideal for the installation of guardrail posts that are able to resist the lateral forces that occur at the top of railing assemblies.

- **The DTT1Z provides a lateral connection from the outside of the house, eliminating the need to connect to joists inside the structure (which typically requires drywall removal).**
- **The DTT2Z simplifies the building of safe, code-compliant guard rails by anchoring the posts back into the deck framing for a more secure attachment. A stronger and more reliable connection than through bolting or lag screws, it is available ZMAX® galvanised or in stainless steel for maximum corrosion protection.**
- **Both DTTs include the Strong-Drive SDS® Heavy-Duty Connector screws needed to attach to framing. The DTT2Z also includes a washer to place in the seat during installation.**

**Material:** 2mm thick.

**Finish:** DTT1Z/DTT2Z galvanised—ZMAX® coating; DTT2SS—stainless steel. See Corrosion Information

**Installation**

- **The DTT1Z fastens to the narrow or wide face of a single 45mm member using Strong-Drive SDS Heavy-Duty Connector screws or nails and can be fastened to the structure with the Strong-Drive SDWH Timber Hex HDG screw (included). Alternatively it can be attached to the structure using an M10 machine bolt, anchor bolt or lag screw (washer required).**
- **The DTT2Z fastens to the narrow or wide face of a single 45mm member using Strong-Drive SDS screws or nails and can be fastened to the structure with an M12 machine bolt or anchor bolt.**
- **The DTT2Z requires a standard cut-washer installed between the nut and the seat (included).**
- **Strong-Drive® SDS screws install best with a low-speed, high-torque drill with a 3/8" hex-head driver.**
- **Watch an installation video;** [www.strongtie.com/videolibrary/dtt1z.html](http://www.strongtie.com/videolibrary/dtt1z.html)

**Typical Installation**

**DTT1Z-Installed as a Lateral Connector for a Deck Guardrail Post**

For more information on guardrail post connections, see technical bulletin T-GRDRLPST.

**DTT2Z Installed as a Lateral Connector for a Deck Guardrail Post**

For more information on lateral-load connections, see technical bulletin T-DECKLATLOAD.

**Typical DTT1Z Deck-to-House Lateral-load Connection**

For more information on lateral-load connections, see technical bulletin T-DECKLATLOAD.

**Typical DTT2Z Deck-to-House Lateral-load Connection**

For more information on lateral-load connections, see technical bulletin T-DECKLATLOAD.
### DTT Technical Data

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Dimensions (mm)</th>
<th>Fasteners</th>
<th>Minimum Timber Member Size (Depth x Breadth, mm)</th>
<th>Country</th>
<th>Design Tension Capacity (kN)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DTT1Z-KT</td>
<td>2 38 181 37 19 10</td>
<td>6 – 40 x 3.75</td>
<td>AU k₁ = 1.14 5.03</td>
<td>NZ k₁ = 1.0 4.74</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>90 x 38</td>
<td>6 – SD#9 x 38</td>
<td>AU k₁ = 1.14 4.43</td>
<td>NZ k₁ = 1.0 3.65</td>
</tr>
<tr>
<td>DTT2Z</td>
<td>2 85 175 40 21 12</td>
<td>8 – SD56.4 x 38</td>
<td>AU k₁ = 1.14 8.37</td>
<td>NZ k₁ = 1.0 7.72</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>90 x 75</td>
<td>90 x 38</td>
<td>AU k₁ = 1.14 9.94</td>
<td>NZ k₁ = 1.0 9.04</td>
</tr>
</tbody>
</table>

1. Design Capacity is the lesser of (1) the Characteristic Capacity multiplied by the Australian Capacity Factor, or the NZ Strength Reduction Factor (φ), and applicable the k modification factors following AS 1720.1 and NZS 3603 and (2) the Serviceability Capacity which is the load at 6.4mm joint slip, which includes fastener slip, anchor elongation and holdown deformation. Design Capacity is the minimum of test data and structural joint calculation.
2. For Australia, the Capacity Factor (φ) is 0.85 for nails and screws for structural joints in a Category 1 application. Reduce tabulated values where other Category applications govern. For NZ, the Strength Reduction Factor (φ) is 0.85 for nails in lateral load and 0.70 for other fasteners.
3. Duration of Load Factor (k₁) is as shown. Reduce Duration of Load Factor where applicable. Capacities may not be increased.
4. Timber species for joint design is seasoned Radiata Pine, which is Australia Joint Group JD4 per AS 1720.1 Table H2.4 and New Zealand Joint Group J5 per NZS 3603 Table 4.1.
5. The DTT2 is also available in stainless steel (DTT2SS). Table loads for DTT2Z apply to the DTT2SS.
6. Simpson Strong-Tie Strong-Drive SD Connector screws are included with the DTT2s. Fasteners for the DTT1Z and HTT4 are sold separately.
7. Anchor bolt nut should be finger tight plus 1/4 to 1/2 turn with a hand wrench. Care should be taken not to over-tighten the nut.
8. Structural composite timber columns have sides that either show the wide face or the edges of the timber strands/veneers, known as the narrow face.
10. Values in the table reflect installation into the wide face.