Material

Carbon Steel 2mm-2.7mm thick

Finish

Double-Barrier Coating

Corrosion Resistance Level HIGH Quik Guard® Coating: Hex-Head Washer

Corrosion Resistance Level MEDIUM

Size: See illustration on the right and tables below

Features & Benefits

- Flat T and L strap ties, Bolt-like connectors bring decorative appeal and lateral strength to your outdoor living area or even an indoor project
- Fastener and washer create decorative bolt-like connections but install with the ease of a screw and without predrilling
- · Post bases secure timber posts to concrete, while providing a 25mm standoff height to help prevent rot from standing water and ground moisture
- All hardware has been structural strength tested and approved, and can be used to resist wind or seismic loads
- Black Double-Barrier Coating offers premium look while providing a medium level of corrosion protection for many outdoor applications
- Patent hex-head washer design facilitates easy installation

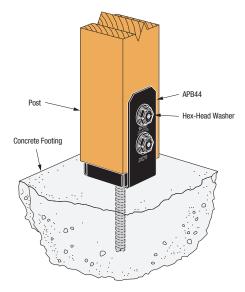
Installation

• Use all specified fasteners

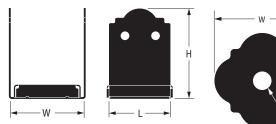
Approvals

- IAPMO-UES ER-192
- IAPMO-UES ER-280
- FL13975-R5
- FL10865-R4

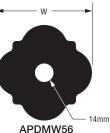
Construction Details



APB44 Post Base Installation



APB66 Post Base



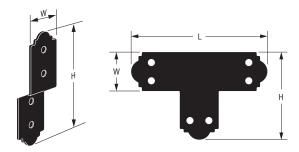
Decorative Washer

SIMPSON

Strong-<u>Tie</u>

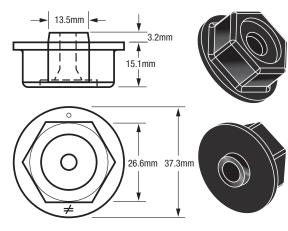
APA4 Heavy Angle

APL4 Strap Tie



APDJT Deck Joist Tie

APT6 Strap Tie



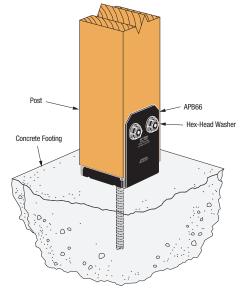
STN22 Hex-Head Washer

Simpson Strong-Tie® Australia Pty Ltd Call 1300 STRONGTIE (1300 787664) www.strongtie.com.au

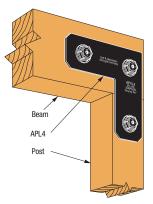
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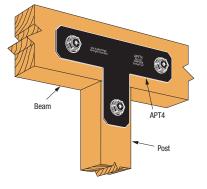
Simpson Strong-Tie® (New Zealand) Ltd Call 09 477 4440 www.strongtie.co.nz

This flyer reflects information available as of December 1, 2019 and may be updated periodically. Please visit our website for current information and limited warranty.

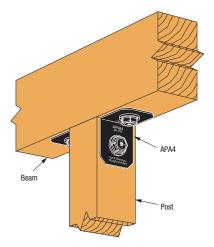


APB66 Post Base Installation

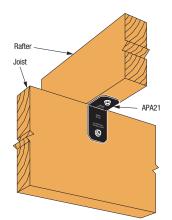




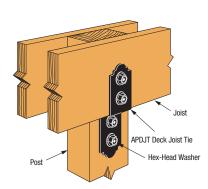
APL4 Post-to-Beam Corner Installation APT4 Post-to-Beam Corner Installation



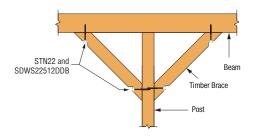
APA Post-to-Beam Corner Installation



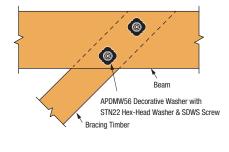
APA21 Joist-to-Rafter Installation



APDJT Joist-to-Post Connection



STN22 & SDWS Timber Brace



STN22 & SDWS Timber Brace Connection with Beam

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Technical Data - Post Bases

| | Dime | Dimensions (mm) | | | Fasteners Qty | | | | | |
|-----------|------|-----------------|----------|--------|------------------|-------------------------------|---------------------------------|---|------|---|
| Model No. | | | ustralia | Nev | Box Qty | | | | | |
| | | vv | н | Column | Anchor Dia. (mm) | Uplift (k ₁ =1.14) | Download (k ₁ =0.69) | Uplift (k_1 =1.0) Download (k_1 =0.8) | | |
| APB44 | 76 | 90 | 178 | 4 | 16 | 4.4 | 38.2 | 4.4 | 31.5 | 8 |
| APB66 | 127 | 140 | 191 | 4 | 16 | 5.0 | 62.9 | 2.5 | 51.8 | 6 |

 Design Capacity is the lesser of (1) the Characteristic Capacity multiplied by the Australian Capacity Factor, or the NZ Strength Reduction Factor (\$\phi\$), and applicable the k modification factors following AS 1720.1 and NZS 3603 and (2) the Serviceability Capacity which is the load at 3.2mm joint slip. 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 0.80 for nails and screws in lateral loading.

3. Duration of Load Factor (k_1) 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 ${\rm H}_2.4$ and New Zealand timber grade SG8.

- 5. Uplift loads have been increased for wind or earthquake or seismic with no further increase allowed; reduce where others govern.
- 6. Downloads may not be increased for short-term loading.

where applicable. Capacities may not be increased.

5. Design capacity is for a single part.

- 7. Specifier to design concrete for uplift capacity.
- 8. Downloads shall be reduced where limited by capacity of the post.
- All post fasteners are a Simpson Strong-Tie[®] SDWS22312DB inserted through an STN22 washer.
- 10. Post bases do not provide adequate resistance to prevent members from rotating about the base and therefore are not recommended for non-top-supported installations (such as fences or unbraced carports).

4. Timber species for joint design is seasoned Radiata Pine, which is Australia

6. Joist fastener is a Simpson Strong-Tie SDWS22512DB inserted through an

7. Post fastener is a Simpson Strong-Tie SDWS22312DB inserted through an

Joint Group JD4 per AS 1720.1 Table H2.4 and New Zealand timber grade

Technical Data - Deck Joist Tie

| | | Di | mensions | ; (mm) | Design Capacit | y (kN) - Download | | |
|-------------|-----|----|----------|--------|------------------------------|-----------------------------|---------|--|
| Model No. | Ga. | c | w | н | Australia | New Zealand | Box Qty | |
| | | 5 | ** | | Floor (k ₁ =0.69) | Floor (k ₁ =0.8) | | |
| APDJT1.75-4 | 10 | 45 | 76 | 246 | 14.4 | 13.5 | 24 | |

SG8.

STN22 washer.

STN22 washer.

 Design Capacity is the lesser of (1) the Characteristic Capacity multiplied by the Australian Capacity Factor, or the NZ Strength Reduction Factor (\$), and applicable the k modification factors following AS 1720.1 and NZS 3603 and (2) the Serviceability Capacity which is the load at 3.2mm joint slip. 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 0.80 for nails and screws in lateral loading.

3. Duration of Load Factor (k1) is as shown. Reduce Duration of Load Factor

Technical Data - Strap Ties

| | Dim | Dimensions (mm) | | | ers Qty | | | | | | | |
|-----------|-----|-----------------|-----|--------|---------|-------------------------------|---------------------------------------|------------------------------|--------------------------------------|---------|--|--|
| Model No. | w | | н | | Deem | Aust | ralia | New Z | ealand | Box Qty | | |
| | | L | | Column | Beam | Uplift (k ₁ =1.14) | F ₁ (k ₁ =1.14) | Uplift (k ₁ =1.0) | F ₁ (k ₁ =1.0) | | | |
| APL4 | 76 | 210 | 210 | 2 | 4 | 5.7 | 3.0 | 5.7 | 3.0 | | | |
| APL6 | 127 | 286 | 286 | 4 | 6 | 8.6 | 6.0 | 8.6 | 6.0 | | | |
| APT4 | 76 | 343 | 210 | 2 | 4 | 5.9 | 4.5 | 5.9 | 4.5 | 8 | | |
| APT6 | 127 | 445 | 286 | 4 | 8 | 12.9 | 6.3 | 10.8 | 6.3 | | | |

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 3.2mm joint slip. 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 0.80 for nails and screws in lateral loading.

3. Duration of Load Factor (k1) is as shown. Reduce Duration of Load Factor

where applicable. Capacities may not be increased.

 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 timber grade SG8.

- Allowable loads have been increased for wind or seismic loads with no further increase allowed.
- 6. Connectors must be installed in pairs. Allowable loads do not apply to single parts.
- 7. All fasteners are a Simpson Strong-Tie® SDWS22312DB inserted through an STN22 washer.

SIMPSON Strong-Tie

Technical Data - Angles (2 required for APA4)

| Model No. | Dir | mensions (m | ım) | Fasten | ers Qty | | | | | |
|-----------|-----|----------------|----------------|--------|---------|-------------------------------|---------------------------------------|------------------------------|--------------------------------------|----|
| | | | We | Column | Beam | Australia | | New Ze | Box Qty | |
| | L | W ₁ | W ₂ | (Qty) | (Qty) | Uplift (k ₁ =1.14) | F ₁ (k ₁ =1.14) | Uplift (k ₁ =1.0) | F ₁ (k ₁ =1.0) | |
| APA4 | 76 | 83 | 76 | 2 | 2 | 2.0 | 6.2 | 2.0 | 6.2 | 12 |
| APA21 | 35 | 51 | 38 | 1 | 1 | 0.9 | 1.1 | 0.9 | 1.1 | 90 |

4.

5.

6.

8.

9.

 Design Capacity is the lesser of (1) the Characteristic Capacity multiplied by the Australian Capacity Factor, or the NZ Strength Reduction Factor (\$), and applicable the k modification factors following AS 1720.1 and NZS 3603 and (2) the Serviceability Capacity which is the load at 3.2mm joint slip. Design Capacity is the minimum of test data and structural joint calculation.

3. Duration of Load Factor (k1) is as shown. Reduce Duration of Load Factor where applicable. Capacities may not be increased.

Technical Data - Decorative Washer

| Model No. | Thickness | Hole Dia. | W | | |
|-----------|-----------|-----------|-------|--|--|
| APDMW56 | 2.7 mm | 15 mm | 76 mm | | |

1. Fastener is SDWS22312DBB or SDWS22512DBB, inserted through an STN22 washer.

Technical Data - Connector Screws

| | | | | Charao | cteristic Withd | rawal Value (N | l/mm) | | |
|------------|------------|-----------------------|----------------------------|--------|-----------------|----------------|---------|-------------------------------|--|
| Model No. | Size | Thread Length (mm) | Timber Side Member (mm) | Aust | ralia | New Z | lealand | Box Qty | |
| | | () | () | JD4 | JD5 | SG8 SG6 | | | |
| SD10112DBB | #10 x 38mm | 25 | 38 | 101 | 71 | 139 | 97 | 5 Packs (50 per clamshell) | |

1. Characteristic values are for connections between two members with full thread penetration into the main member.

2. Characteristic values are based on installation into the side grain of the timber with the screw axis perpendicular to the face of the member.

3. The main and side members shall be sawn timber or structural composite

timber with the specific gravity or equivalent specific gravity typical of JD4 and JD5 for Australia or SG8 and SG6 for New Zealand.

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 timber grade SG8.

Allowable loads have been increased for wind or seismic

All fasteners for APA21 are a Simpson Strong-Tie® SD#10x38.

For APA4, connectors must be installed in pairs.

For APA21 - Allowable loads are for a single part.

All fasteners for APA4 are a Simpson Strong-Tie® SDWS22312DB inserted through an STN22 washer.

Allowable loads do not apply to single parts.

loads with no further increase allowed.

4. For design values, apply appropriate capacity factor.

5. Design values shall be multiplied by applicable adjustment factors from AS 1720.1 or NZS 3603.

Technical Data - Structural Timber Screw and Hex-Head Washer

| | | | | | Chai | racteristic | : Lateral | Value, Q _{ki} | _ (N) | | | | |
|------------------|--------------------|----------------------|-----------------------|----------------------------|------|-------------|-----------|------------------------|--------|--------------------------------|-------------------------|------|--------------------------------|
| Model No. | Hex-Head Washer | Screw Length (mm) | Thread Length (mm) | Timber Side Member (mm) | | Australia | | New Z | ealand | Carton Qty | | | |
| | | () | () | () | JD4 | JD5 | JD6 | SG8 SG6 | | | | | |
| SDWS22312DBBRC12 | STN22-R8 | STN22-R8 | | | 80 | 51 | | 3475 | 2840 | 2660 | 3460 | 0145 | 10 Packs (12 per clamshell) |
| SDWS22312DBB-R50 | | | 89 | 51 | 38 | 3475 | 2840 | 2000 | 3400 | 3145 | 6 Packs (50 per box) | | |
| SDWS22512DBBRC12 | | 140 | 70 | | 6930 | 6400 | 3910 | 9140 | 8580 | 10 Packs (12 per clamshell) | | | |

1. Characteristic values are for connections between two members with full thread penetration into the main member.

2. Characteristic values are based on installation into the side grain of the timber with the screw axis perpendicular to the face of the member.

3. The main and side members shall be sawn timber or structural composite

timber with the specific gravity or equivalent specific gravity typical of JD4, JD5 and JD6 for Australia or SG8 and SG6 for New Zealand. 4. For design values, apply appropriate capacity factor.

 Design values shall be multiplied by applicable adjustment factors from AS 1720.1 or NZS 3603.

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