Tough Enough For The Most Demanding Jobs

Strong-Drive
SDWH TIMBER-HEX HDG Screw
Structural Wood-to-Wood Connections

(800) 999-5099
www.strongtie.com
The Strong-Drive® line of structural screws now includes a .276” diameter hot-dip galvanized screw suitable for heavy-duty marine and coastal applications. The SDWH TIMBER-HEX HDG screw has a SawTooth™ point and oversized integral washer that makes for fast installations; no predrilling or separate washer needed. Speed up your next pile job by replacing ¾” and 5/8” HDG bolt/washer/nut assemblies (2 screws for 1 bolt in many conditions) with the new Strong-Drive® SDWH TIMBER-HEX HDG screw.

**Great for all types of coastal projects**

- **Burly .276” shank diameter** for heavy-duty structural applications
- **SawTooth™ point** design for fast starts and no predrilling
- **Oversized .930” diameter integral washer** eliminates the need for a separate washer
- **3/8” hex drive** for secure driving
- **ASTM A153 Class-C hot-dip galvanized coating** suitable for coastal and marine environments
- **Available Lengths**: 4”, 6”, 8”, 10”, 12”

**INSTALL TIP**
- For best results, use a minimum of ½” low-speed corded drill to install

**Premium ball-lock hex driver bit included**
Save Time and Money
with the lowest installed cost
pile-fastening solution on the market

- Install fastener from one side
- No predrilling necessary
- Drives fast, saving you time
- No need to purchase separate washers, nuts, and bolts
- No expensive auger drill bits

Common Applications:
- Structural pilings
- Piers
- Docks
- Boardwalks
- Anywhere you need a tough exterior structural fastener
## Square Piling

### Stringer-to-Square Pile Connection Loads

<table>
<thead>
<tr>
<th>Square Pile Size (inches)</th>
<th>Stringer Size</th>
<th>Total No. Stringers</th>
<th>Screw Length (inches)</th>
<th>Screw Model No.</th>
<th>No. Screws (Each Side)</th>
<th>Continuous Uplift</th>
<th>Spliced Uplift</th>
<th>End Uplift</th>
<th>Continuous Lateral</th>
<th>Spliced Lateral</th>
<th>End Lateral</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>2 x 10</td>
<td>2</td>
<td>8 SDWH27800G</td>
<td>4</td>
<td></td>
<td>3455</td>
<td>2370</td>
<td>2085</td>
<td>4035</td>
<td>3750</td>
<td>3380</td>
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<tr>
<td>10</td>
<td>2 x 10</td>
<td>2</td>
<td>10 SDWH271000G</td>
<td>4</td>
<td></td>
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<td>3290</td>
<td>2380</td>
<td>4705</td>
<td>4290</td>
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<td>12</td>
<td>2 x 10</td>
<td>2</td>
<td>12 SDWH271200G</td>
<td>4</td>
<td></td>
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<td>2490</td>
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<td>4</td>
<td>10 SDWH271000G</td>
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<td></td>
<td>5100</td>
<td>4160</td>
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<td>7090</td>
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<td>5920</td>
<td>5275</td>
<td>8305</td>
<td>8305</td>
<td>7640</td>
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</table>

1. All tabulated values are based on double shear action with the same size and quantity of stringers on each side of the pile.
2. Dimensions and allowable connection loads are based on notched piles that must accommodate the stringers with adequate bearing and no gaps. Notched piles shall not be notched such that more than 50% of the cross section is removed. Unnotched piles may be used providing the width and area of wood between the stringers and the fastener placement geometry is unchanged from the notched conditions.
3. Allowable loads are shown at the wood load duration factor of $C_D=1.0$. Loads may be increased for load duration per the building code up to a $C_D=1.6$. Tabulated values must be multiplied by all applicable adjustment factors per the NDS.
4. For in-service moisture content greater than 19%, use $C_M = 0.68$.
5. For conditions with stringers on one side only, use the longest screw length that does not extend beyond the opposite surface of the pile. Use one quarter of the loads shown for that length screw and stringer condition.
6. Wood piles are SP. Wood stringers may be sawn lumber, glulam, or SCL with minimum SG = 0.55 (or equivalent). For stringer widths at least 1.5” and less than 3.0” thick, use the table values for the conditions with a single 2x stringer on each side of the pile.
7. When the screws are simultaneously loaded in more than one direction, the allowable load must be evaluated using the unity equation:
   $$(Design\ Uplift/Allowable\ Uplift) + (Design\ Lateral/Allowable\ Lateral) \leq 1.0.$$
Strong-Drive SDWH TIMBER-HEX HDG Screw

Square Piling — Single Stringer — Continuous Condition

- **8" Square Pile — Single 2x10**
  - (8) 8" SDWH TIMBER HEX HDG Screws

- **10" Square Pile — Single 2x10**
  - (8) 10" SDWH TIMBER HEX HDG Screws

- **12" Square Pile — Single 2x10**
  - (8) 12" SDWH TIMBER HEX HDG Screws

Double Stringer — End Condition

- **10" Square Pile — Double 2x10**
  - (8) 10" SDWH TIMBER HEX HDG Screws

- **12" Square Pile — Double 2x10**
  - (8) 12" SDWH TIMBER HEX HDG Screws

- **12" Square Pile — Double 2x12**
  - (12) 12" SDWH TIMBER HEX HDG Screws
Square Piling – Double Stringer – Continuous Condition

10" Square Pile – Double 2x10
(8) 10" SDWH TIMBER HEX HDG Screws

12" Square Pile – Double 2x10
(8) 12" SDWH TIMBER HEX HDG Screws

12" Square Pile – Double 2x12
(12) 12" SDWH TIMBER HEX HDG Screws
Stringer-to-Round Pile Connection Loads

<table>
<thead>
<tr>
<th>Round Pile Diameter (inches)</th>
<th>Stringer Size</th>
<th>Total No. Stringers</th>
<th>Screw Length (inches)</th>
<th>Screw Model No.</th>
<th>No. Screws (Each Side)</th>
<th>Allowable Connection Loads (lbs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Continuous Spliced End Continuous Spliced End</td>
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<tr>
<td>10</td>
<td>2 x 10</td>
<td>2</td>
<td>10</td>
<td>SDWH271000G</td>
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<td>Uplift: 3965 2960 2140 2260</td>
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<td>Lateral: 3430 3190 2875</td>
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<tr>
<td>12</td>
<td>2 x 10</td>
<td>2</td>
<td>12</td>
<td>SDWH271200G</td>
<td>4</td>
<td>Uplift: 3725 3130 2240 2340</td>
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<td>Lateral: 4000 3645 3505</td>
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<td>Uplift: 4590 3745 2785 2880</td>
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<td>Lateral: 4340 3190 2875</td>
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<td>2 x 12</td>
<td>2</td>
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<td>SDWH271200G</td>
<td>4</td>
<td>Uplift: 7055 4975 4140 4340</td>
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<td>Uplift: 8735 5330 4750 5000</td>
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<td>Lateral: 6000 5470 5260</td>
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<td>Uplift: 3530 2490 2070 2270</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Lateral: 3000 2735 2630</td>
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</tbody>
</table>

1. All tabulated values are based on double shear action with the same size and quantity of stringers on each side of the pile.
2. Dimensions and allowable connection loads are based on notched piles that must accommodate the stringers with adequate bearing and no gaps. Notched piles shall not be notched such that more than 50% of the cross section is removed. Unnotched piles may be used providing the width and area of wood between the stringers and the fastener placement geometry is unchanged from the notched conditions.
3. Allowable loads are shown at the wood load duration factor of \( C_D = 1.0 \). Loads may be increased for load duration per the building code up to a \( C_D = 1.6 \). Tabulated values must be multiplied by all applicable adjustment factors per the NDS.
4. For in-service moisture content greater than 19%, use \( C_M = 0.68 \).
5. For conditions with stringers on one side only, use the longest screw length that does not extend beyond the opposite surface of the pile. Use one quarter of the loads shown for that length screw and stringer condition.
6. Wood piles are SP. Wood stringers may be sawn lumber, glulam, or SCL with minimum \( S_G = 0.55 \) (or equivalent). For stringer widths at least 1.5” and less than 3.0” thick, use the table values for the conditions with a single 2x stringer on each side of the pile.
7. For 14” diameter piles, use the same screw pattern as for the 12” piles. Loads for 14” diameter piles are based on single shear action.
8. When the screws are simultaneously loaded in more than one direction, the allowable load must be evaluated using the unity equation:
   \[ \text{Design Uplift/Allowable Uplift} + \text{Design Lateral/Allowable Lateral} \leq 1.0 \].

Single Stringer — End Condition

10” Round Pile – Single 2x10
(8) 10” SDWH TIMBER HEX HDG Screws

12” Round Pile – Single 2x10
(8) 12” SDWH TIMBER HEX HDG Screws

14” Round Pile – Single 2x10
(8) 12” SDWH TIMBER HEX HDG Screws
Round Piling — Single Stringer — Continuous Condition

10" Round Pile – Single 2x10
(8) 10" SDWH TIMBER HEX HDG Screws

12" Round Pile – Single 2x10
(8) 12" SDWH TIMBER HEX HDG Screws

14" Round Pile – Single 2x10
(8) 12" SDWH TIMBER HEX HDG Screws

Double Stringer — End Condition

10" Round Pile – Double 2x10
(8) 10" SDWH TIMBER HEX HDG Screws

12" Round Pile – Double 2x10
(8) 12" SDWH TIMBER HEX HDG Screws

12" Round Pile – Double 2x12
(12) 12" SDWH TIMBER HEX HDG Screws
Strong-Drive SDWH TIMBER-HEX HDG Screw

Round Piling — Double Stringer — End Condition

14" Round Pile — Double 2x10
(8) 12" SDWH TIMBER HEX HDG Screws

14" Round Pile — Double 2x12
(12) 12" SDWH TIMBER HEX HDG Screws

Double Stringer — Continuous Condition

10" Round Pile — Double 2x10
(8) 10" SDWH TIMBER HEX HDG Screws

12" Round Pile — Double 2x10
(8) 12" SDWH TIMBER HEX HDG Screws

12" Round Pile — Double 2x12
(12) 12" SDWH TIMBER HEX HDG Screws
Strong-Drive SDWH TIMBER-HEX HDG Screw

Round Piling — Double Stringer — Continuous Condition

14" Round Pile – Double 2x10
(8) 12" SDWH TIMBER HEX HDG Screws

14" Round Pile – Double 2x12
(12) 12" SDWH TIMBER HEX HDG Screws
Product Information

<table>
<thead>
<tr>
<th>Screw Length (in.)</th>
<th>Screw Dia. (in.)</th>
<th>Hex-Drive (in.)</th>
<th>Thread Length (in.)</th>
<th>Individually Flagged Retail Box</th>
<th>Retail</th>
<th>Mini-Bulk</th>
<th>Bucket</th>
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<tr>
<td>4</td>
<td>0.276</td>
<td>%</td>
<td>3</td>
<td>40  SDWH27400G-RP1</td>
<td>30</td>
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<td>6</td>
<td>0.276</td>
<td>%</td>
<td>3</td>
<td>30  SDWH27600G-RP1</td>
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<td>300</td>
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<td>8</td>
<td>0.276</td>
<td>%</td>
<td>3</td>
<td>25  SDWH27800G-RP1</td>
<td>30</td>
<td>150</td>
<td>—</td>
</tr>
<tr>
<td>10</td>
<td>0.276</td>
<td>%</td>
<td>3</td>
<td>25  SDWH271000G-RP1</td>
<td>30</td>
<td>150</td>
<td>—</td>
</tr>
<tr>
<td>12</td>
<td>0.276</td>
<td>%</td>
<td>3</td>
<td>25  SDWH271200G-RP1</td>
<td>30</td>
<td>150</td>
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Single Shear Loads

<table>
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<tr>
<th>Screw Length (inches)</th>
<th>Screw Diameter (inches)</th>
<th>Thread Length (inches)</th>
<th>Screw Model No.</th>
<th>Allowable Shear Loads (lbs.)</th>
<th>Allowable Withdrawal Load, W (lbs./inch)</th>
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</thead>
<tbody>
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<td>Wood Side Member Thickness (inches)</td>
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<td>675</td>
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<tr>
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<td>3</td>
<td>SDWH271000G</td>
<td>570</td>
<td>675</td>
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<tr>
<td>12</td>
<td>0.276</td>
<td>3</td>
<td>SDWH271200G</td>
<td>570</td>
<td>675</td>
</tr>
</tbody>
</table>

1. All applications are based on full penetration into the main member. Full penetration is the screw length minus the side member thickness.
2. Allowable loads are shown at the wood load duration factor of C_D=1.0. Loads may be increased for load duration per the building code up to a C_D=1.6. Tabulated values must be multiplied by all applicable adjustment factors per the NDS.
3. For in-service moisture content greater than 19% : withdrawal C_M=0.65; shear C_M=0.68.
4. For multiple fasteners, minimum fastener spacing requirements: 8” end distance, 1½” edge distance, ¼” between staggered rows of fasteners, 4” between non-staggered rows of fasteners and 8” between fasteners in a row, multiply the table values by 0.80.
5. Tabulated loads are for both parallel and perpendicular to grain loading.
6. Maximum withdrawal loads are based on the length of threads in the main member.
Best-in-class, load-tested fasteners: Strong-Drive® structural fasteners are engineered and extensively tested to efficiently meet your most demanding wood and metal applications. Stronger can also be faster. The Strong-Drive family is designed to install easier than other fastening methods, which saves time and money. Learn more, call (800) 999-5099 or visit www.strongtie.com/strongdrive.

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This flier is effective until December 31, 2016, and reflects information available as of November 1, 2014. This information is updated periodically and should not be relied upon after December 31, 2016; visit www.strongtie.com for current information.