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Codes & Standards > Calculators & Software > Connection Calculator

| | |
|---------------------------------------|-------------------------------|
| Design Method | Allowable Stress Design (ASD) |
| Connection Type | Lateral loading |
| Fastener Type | Wood Screw |
| Loading Scenario | Single Shear |
| Submit Initial Values | |

| | |
|--|-----------------------|
| Main Member Type | Douglas Fir-Larch |
| Main Member Thickness | 3.5 in. |
| Main Member: Angle of Load to Grain | 0 |
| Side Member Type | Douglas Fir-Larch |
| Side Member Thickness | 1.75 in. |
| Side Member: Angle of Load to Grain | 0 |
| Wood Screw Number | 14 (D = 0.242 in.) |
| Length | 4 in. |
| Load Duration Factor | C _D = 1.6 |
| Wet Service Factor | C _M = 1.0 |
| End Grain Factor | C _{eg} = 1.0 |
| Temperature Factor | C _t = 1.0 |

Calculate Connection Capacity

| | |
|--|---|
| Connection Yield Mode Descriptions | Limits of Use |
| Diaphragm Factor Help | Load Duration Factor Help |
| Show Printable View | Technical Help |

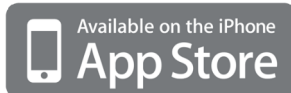
Connection Yield Modes

| | |
|-------|-----------|
| Im | 1047 lbs. |
| Is | 1037 lbs. |
| II | 432 lbs. |
| IIIIm | 381 lbs. |
| IIIs | 378 lbs. |
| IV | 260 lbs. |

| | |
|------------------------------|-----------------|
| Adjusted ASD Capacity | 260 lbs. |
|------------------------------|-----------------|

- Wood Screw bending yield strength of 70000 psi is assumed.
- Dowel bearing strengths for wood screws with nominal diameter greater than 1/4 in. are rounded to the nearest 50 psi in accordance with NDS Table 11.3.2.
- Length of tapered tip is assumed to be two times the nominal wood screw diameter for bearing length in the main member.

Provides users with a web-based approach to calculating capacities for single bolts, nails, lag screws and wood screws **per the 2005 NDS**. Both lateral (single and double shear) and withdrawal capacities can be determined. Wood-to-wood, wood-to-concrete, and wood-to-steel connections are possible.



Connection Calculator available for the **iPhone**.



Connection Calculator available for the **Android OS**.



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