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AMERICAN WOOD COUNCIL

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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	16 (D = 0.268 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

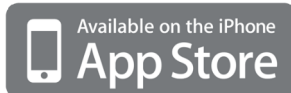
Connection Yield Modes

Im	1239 lbs.
Is	1265 lbs.
II	519 lbs.
IIIIm	451 lbs.
IIIIs	459 lbs.
IV	308 lbs.

Adjusted ASD Capacity	308 lbs.
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- 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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