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Codes & Standards > Calculators & Software > Connection Calculator

Design Method	Allowable Stress Design (ASD)
Connection Type	Lateral loading
Fastener Type	Bolt
Loading Scenario	Single Shear - Concrete Main Member
Submit Initial Values	

Main Member Type	Concrete
Bolt Embedment Depth in Concrete	4 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
Fastener Diameter	1 in.
Load Duration Factor	C _D = 1.6
Wet Service Factor	C _M = 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

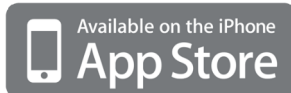
Im	12000 lbs.
Is	3920 lbs.
II	4216 lbs.
IIIIm	5570 lbs.
IIIIs	3543 lbs.
IV	4904 lbs.

Adjusted ASD Capacity	3543 lbs.
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- Bolt bending yield strength of 45,000 psi is assumed.
- The Adjusted ASD Capacity is only applicable for bolts with adequate end distance, ed per NDS chapter 11.

While every effort has been made to insure the accuracy of the information presented, and s made to assure that the information reflects the state-of-the-art, neither the American Wood members assume any responsibility for any particular design prepared from this on-line Con

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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