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AMERICAN WOOD COUNCIL

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## Codes & Standards > Calculators & Software > Connection Calculator

<b>Design Method</b>	Allowable Stress Design (ASD)
<b>Connection Type</b>	Lateral loading
<b>Fastener Type</b>	Bolt
<b>Loading Scenario</b>	Single Shear - Concrete Main Member
<a href="#">Submit Initial Values</a>	

<b>Main Member Type</b>	Concrete
<b>Bolt Embedment Depth in Concrete</b>	4 in.
<b>Main Member: Angle of Load to Grain</b>	0
<b>Side Member Type</b>	Douglas Fir-Larch
<b>Side Member Thickness</b>	1.75 in.
<b>Side Member: Angle of Load to Grain</b>	0
<b>Fastener Diameter</b>	1/2 in.
<b>Load Duration Factor</b>	C <sub>D</sub> = 1.6
<b>Wet Service Factor</b>	C <sub>M</sub> = 1.0
<b>Temperature Factor</b>	C <sub>t</sub> = 1.0

### Calculate Connection Capacity

<a href="#">Connection Yield Mode Descriptions</a>	<a href="#">Limits of Use</a>
<a href="#">Diaphragm Factor Help</a>	<a href="#">Load Duration Factor Help</a>
<a href="#">Show Printable View</a>	<a href="#">Technical Help</a>

## Connection Yield Modes

Im	6000 lbs.
Is	1960 lbs.
II	2108 lbs.
IIIIm	2478 lbs.
IIIs	1121 lbs.
IV	1226 lbs.

<b>Adjusted ASD Capacity</b>	<b>1121 lbs.</b>
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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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