



# Joining 2 Ply 4x2 Floor Trusses

The following information pertains to the use of the MiTek® WS6 Wood Screws to fasten together a two-ply 4x2 floor truss girder, such that the induced loads are supported by both truss plies. Screw spacing and the location of each specific screw may vary depending on the design criteria for each application, and therefore must be determined by the truss or building designer. However, in the determination of screw locations, the following criterion shall also be considered. These criterion are varying dependent upon how trusses are loaded as follows:

### Uniform/Distributed Load

- Screws shall be installed into the top chord with a horizontal spacing between screws of not less than 4-inches on center and not more than 24-inches on center.
- A minimum end distance of 4-inches must be maintained. If necessary, additional screws may be installed in the bottom chord.
- Center screw vertically on 1-1/2-inch dimension of top chord. If splitting occurs, it may be necessary to pre-drill the holes in accordance with the code.
- The screws shall be installed with the headed end of the screw on the loaded truss. If either ply is “the loaded truss”, the screws shall be divided between the two plies, with the spacing on each side twice the minimum indicated above.
- The screws shall not be installed through the metal truss plates, unless approved by the truss designer and the plates are pre-drilled, on each side to a 1/4-inch diameter. Do not drill through the wood.
- The maximum gap between the wood members of the two trusses shall be 1/8-inch.
- The truss designer shall design the truss members with the capacity and capability of the screws in mind, and shall meet all provisions of the code and ANSI/TPI.
- Individual screw locations may need to be adjusted to avoid conflicts with connectors, problematic wood or other framing members. Adjustments should follow the criteria described in this section.

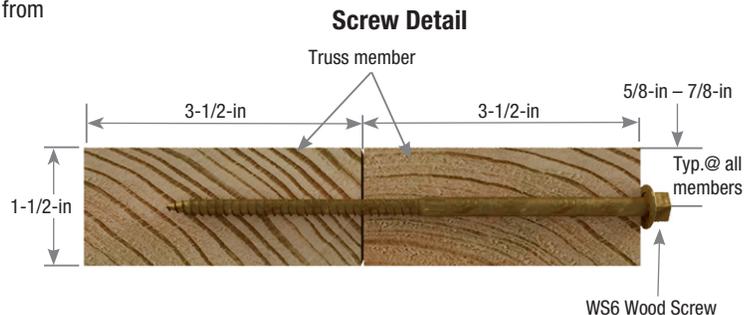
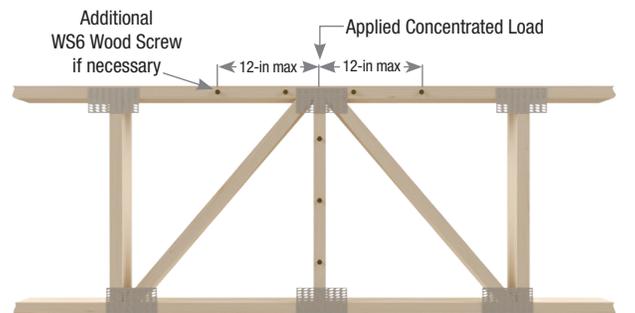
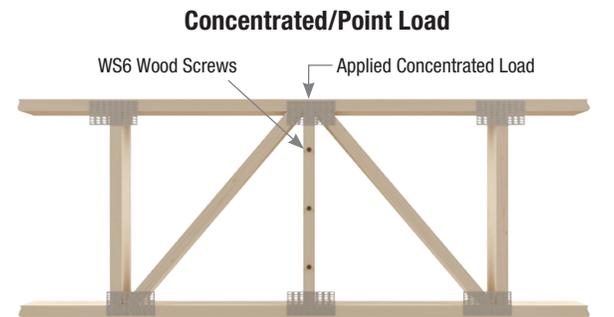
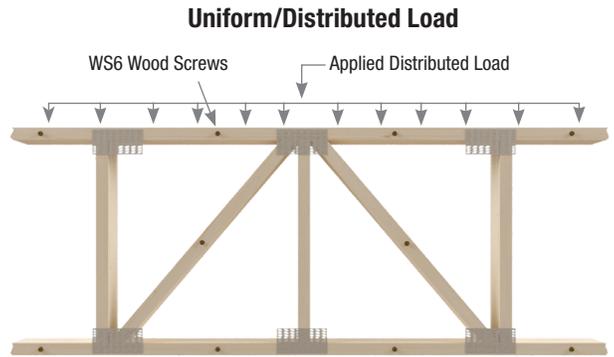
### Concentrated/Point Load

The placement of fasteners for concentrated loading includes all requirements of uniform loading with the additional following criteria:

- Loads must occur over a vertical member, and the necessary concentration of screws shall be installed in the vertical member.
- Additional screws may be installed on the top chord and adjacent web members if necessary.
- The fasteners should be grouped as close to the concentrated load as possible, but satisfy the same minimum spacing indicated for uniform loading.
- In no case shall the required group of fasteners extend beyond 12-inches from the location of the concentrated load.

MiTek Stock No.		DF Allowable Shear Loads (Lbs.)	SP Allowable Shear Loads (Lbs.)	S-P-F Allowable Shear Loads (Lbs.)
Zinc Finish <sup>1</sup>	EXT Finish <sup>1</sup>	Floor 100%	Floor 100%	Floor 100%
WS6	WS6-EXT	243	266	206
WSWH6	WSWH6-EXT			

1) Zinc = Yellow Zinc Dichromate; EXT = Exterior Coat.  
 2) Values imply to two ply truss loaded on either side.



### Customer Service & Technical Assistance

PHONE: 1-800-328-5934 • FAX: 1-952-898-8605 • EMAIL: customerservice@mii.com

MiTek-US.com