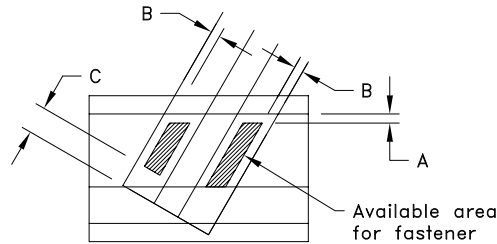


## Fastener Placement Detail

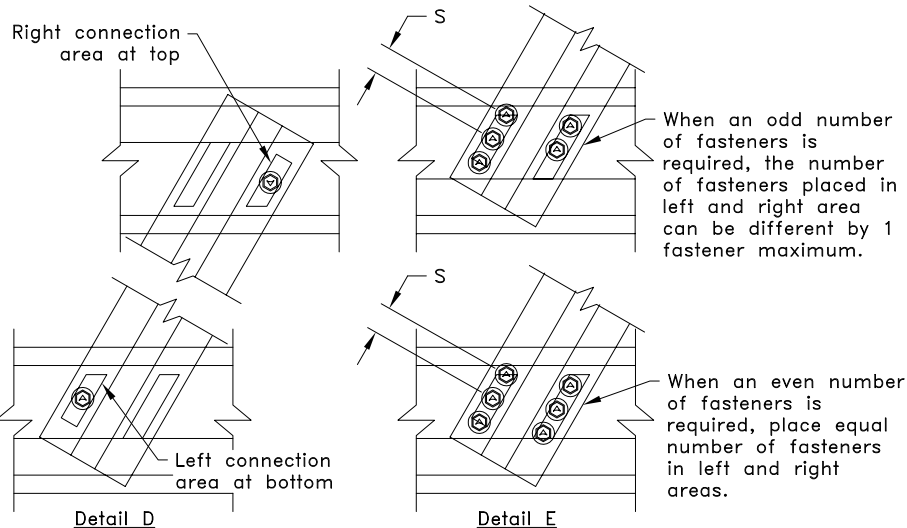
- A - Lip clearance = 5/16" (8mm) for TSC3.00 & TSC4.00
- B - Edge distance (1.0 x Fastener Dia.)
- C - End distance (3.0 x Fastener Dia.)
- S - Minimum fastener spacing (3.0 x Fastener Dia.)



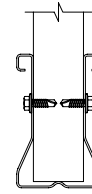
Fastener Dia. in. (mm)	Min. fastener spacing & end distance in. (mm)	Fastener edge distance in. (mm)
#14 d=1/4 (6)	#14 S=C= 3/4 (19)	#14 B=1/4 (6)

**Detail D** - Fastener placement when only one fastener is required for connection: Fasteners at top and bottom of connection must be placed in opposite sides of web as shown.

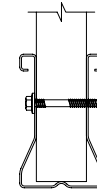
**Detail E** - Fastener placement when multiple fasteners are required for connection: Begin placing the fasteners in the center of the available areas and expand toward the outer edges. Fastener quantity shall be specified by the approved truss drawing.



## Typical Fastener Placement Sections



**AMS**  
Single Shear Fastener



**AMD**  
Double Shear™ Fastener

Allowable shear loads per fastener lbs. (kN) for 14AMD Double Shear™ Fasteners

TrusSteel Web Thickness	TrusSteel Chord Thickness					
	22g-28TSC	20g-33TSC	18g-43TSC	16g-54TSC	14g-68TSC	12g-97TSC
20g-33Z	582 (2.59)	688 (3.06)	783 (3.48)	886 (3.94)	886 (3.94)	886 (3.94)
18g-43Z	728 (3.24)	914 (4.07)	1089 (4.84)	1166 (5.19)	1166 (5.19)	1166 (5.19)
16g-54Z	728 (3.24)	914 (4.07)	1181 (5.25)	1264 (5.62)	1264 (5.62)	1264 (5.62)

Allowable shear loads per fastener lbs. (kN) for 14AMS.75 Single Shear Fasteners

TrusSteel Web Thickness	TrusSteel Chord Thickness					
	22g-28TSC	20g-33TSC	18g-43TSC	16g-54TSC	14g-68TSC	12g-97TSC
20g-33Z	248 (1.10)	248 (1.10)	248 (1.10)	248 (1.10)	248 (1.10)	248 (1.10)
18g-43Z	369 (1.64)	369 (1.64)	369 (1.64)	369 (1.64)	369 (1.64)	369 (1.64)
16g-54Z	437 (1.94)	437 (1.94)	437 (1.94)	437 (1.94)	437 (1.94)	437 (1.94)

### General Notes:

- 14AMD Double Shear™ Fasteners mentioned above consist of 14AMDB2.125, 14AMDR2.375 and 14AMD2.625.
- 14AMD fastener values were determined by test following guidelines set forth in Chapter K of the American Iron and Steel Institute (AISI), AISI 2016 "North American Specifications for the Design of Cold-Formed Steel Structural Members" (S100-16). 14AMS fastener values were determined by calculations set forth in Chapter J4 of the American Iron and Steel Institute (AISI), AISI 2016 "North American Specifications for the Design of Cold-Formed Steel Structural Members" (S100-16).
- The AMD and AMS fasteners are self-drilling Hex washer head screws made from 1022 carbon steel wire that is case hardened and are designed to drill through and install into TrusSteel chords and webs. The threads are a buttress type with thirteen threads per inch. They are manufactured to perform in accordance with the Society of Automotive Engineers (SAE) J78 standard for steel self-drilling tapping screws and have a zinc plated and chromate finished corrosion protection applied in accordance with ASTM F1941.



www.TrusSteel.com

Florida: 6750 Forum Drive, Suite 305 / Orlando, FL 32821 / (800) 755-6001  
Missouri: 13723 Riverport Drive, Suite 200 / Maryland Heights, MO 63043 / (800) 326-4102

## Z-Web Fastener Placement And Allowable Shear Loads

Alpine, a division of ITW Building Components Group, Inc. shall not be responsible for any performance failure in a connection due to a deviation from this detail. Any variation from this detail shall be approved in advance by Alpine, a division of ITW Building Components Group, Inc.

**Standard Detail:**

TS011A

**Date:**

10/11/18

**TrusSteel Detail Category:**

Fastener Placement