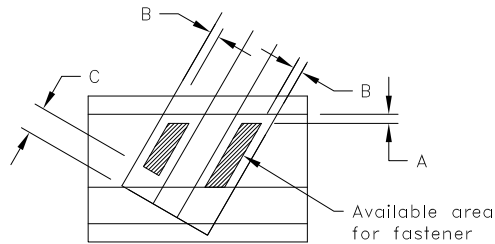


# Fastener Placement Detail

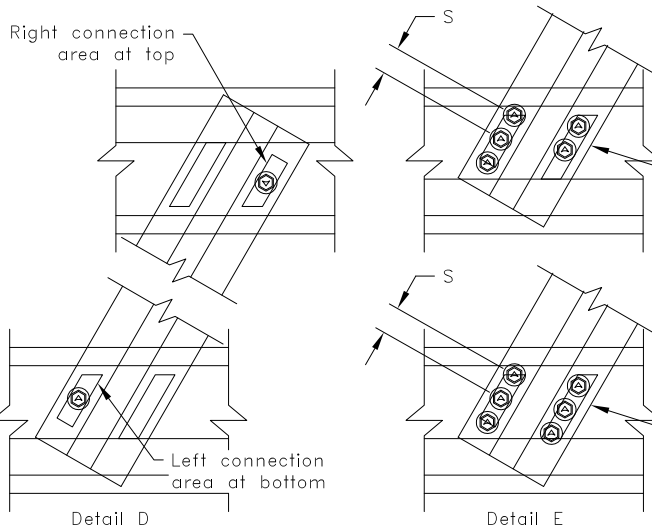
- A - Lip clearance = 5/16" (8mm) for TSC3.00 & TSC4.00
- B - Edge distance (1.0 x Fastener Dia.)
- C - End distance (3.0 x Fastener Dia.)
- S - Minimum fastener spacing (3.0 x Screw Dia.)



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

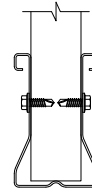
Detail E - Fastener placement when multiple fasteners are required for connection: Begin placing the fasteners in the center of the available areas and expand toward the outer edges. Fastener quantity shall be specified by the approved truss drawing.



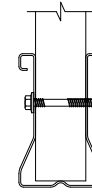
When an odd number of screws is required, the number of screws placed in left and right area can be different by 1 screw maximum.

When an even number of screws is required, place equal number of screws in left and right areas.

# 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	622 (2.77)	736 (3.27)	837 (3.72)	948 (4.22)	948 (4.22)	948 (4.22)
18g-43Z	779 (3.47)	977 (4.35)	1166 (5.19)	1243 (5.53)	1243 (5.53)	1243 (5.53)
16g-54Z	779 (3.47)	977 (4.35)	1263 (5.62)	1348 (6.00)	1348 (6.00)	1348 (6.00)

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 14AMDB1.25, 14AMDR1.5, 14AMDB2.125, 14AMDR2.375 and 14AMD2.625.
- 14AMD fastener values were determined by test following guidelines set forth in Chapter F of the American Iron and Steel Institute (AISI) 2010 supplement to the AISI 2007 "North American Specifications for the Design of Cold-Formed Steel Structural Members" (S100-07/S2-10). 14AMS fastener values were determined by calculations set forth in Chapter E4 of the American Iron and Steel Institute (AISI) 2010 supplement to the AISI 2007 "North American Specifications for the Design of Cold-Formed Steel Structural Members" (S100-07/S2-10).
- 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.

# TrusSteel®

www.TrusSteel.com

## Z-Web Fastener Placement And Allowable Shear Loads For Fasteners

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 ITW Building Components Group, Inc.

Standard Detail:  
TS011A

Date:  
07/16/12

TrusSteel Detail Category:  
Fastener Placement

Florida: 1950 Marley Drive / Haines City, FL 33844 / (800) 755-6001  
 Missouri: 13389 Lakefront Drive / Earth City, MO 63045 / (800) 326-4102