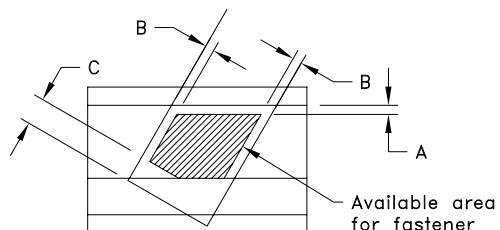


## Fastener Placement Detail

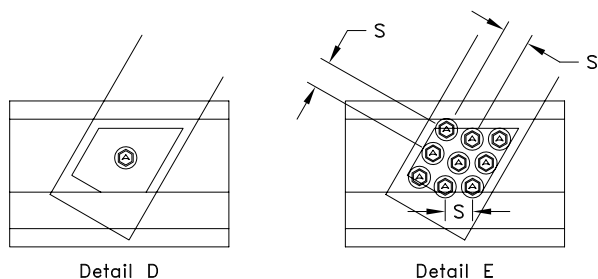
- A – Lip clearance = 5/16" (8mm) for TSC3.00 & TSC4.00  
Lip clearance = 9/32" (7mm) for TSC2.75
- B – Edge distance (1.0 x Fastener Dia.)
- C – End distance (3.0 x Fastener Dia.)
- S – Minimum fastener spacing (3.0 x Fastener Dia.)



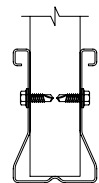
Fastener Dia. in. (mm)	Min. fastener spacing & end distance in. (mm)	Fastener edge. distance in. (mm)
#14 d=1/4 (6)	#14 S=C= 3/4 (19)	#14 B=1/4 (6)

Detail D – Recommended fastener placement for minimum fastener count: Begin placing the fastener in the center of the available area. Fastener quantity shall be specified by the approved truss drawings.

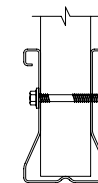
Detail E – Recommended fastener placement for multiple fastener count: Begin placing the fasteners in the center of the available area and expand toward the outer edges. Fastener quantity shall be specified by the approved truss drawings.



## 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-33C	582 (2.59)	688 (3.06)	783 (3.48)	886 (3.94)	886 (3.94)	886 (3.94)
20g-33W	654 (2.91)	722 (3.21)	822 (3.66)	930 (4.14)	930 (4.14)	930 (4.14)
18g-47W	728 (3.24)	914 (4.07)	1181 (5.25)	1264 (5.62)	1264 (5.62)	1264 (5.62)
16g-56W	728 (3.24)	914 (4.07)	1181 (5.25)	1264 (5.62)	1264 (5.62)	1264 (5.62)
16g-63W	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-33C	248 (1.10)	248 (1.10)	248 (1.10)	248 (1.10)	248 (1.10)	248 (1.10)
20g-33W	252 (1.12)	252 (1.12)	252 (1.12)	252 (1.12)	252 (1.12)	252 (1.12)
18g-47W	418 (1.86)	418 (1.86)	418 (1.86)	418 (1.86)	418 (1.86)	418 (1.86)
16g-56W	418 (1.86)	418 (1.86)	418 (1.86)	418 (1.86)	418 (1.86)	418 (1.86)
16g-63W	418 (1.86)	418 (1.86)	418 (1.86)	418 (1.86)	418 (1.86)	418 (1.86)

### General Notes:

- 14AMD Double Shear™ Fasteners mentioned above consist of 14AMDB1.25, 14AMDR1.5, 14AMDB2.125, 14AMDR2.375 and 14AMD2.625.
- 14AMD fastener values for tube (W) webs 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 and 14AMD fastener values for 33C1.5x1.5 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.



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## Tube And C-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:

TS011

Date:

10/11/18

TrusSteel Detail Category:

Fastener Placement