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.)

Available area for fastener

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

Fastener edge distance in. (mm)
#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

<table>
<thead>
<tr>
<th>TrusSteel Web Thickness</th>
<th>TrusSteel Chord Thickness</th>
</tr>
</thead>
<tbody>
<tr>
<td>22g=28SC</td>
<td>20g=33SC</td>
</tr>
<tr>
<td>20g=33Z 582 (2.59)</td>
<td>20g=33Z 688 (3.06)</td>
</tr>
<tr>
<td>18g=43Z 728 (3.24)</td>
<td>18g=43Z 914 (4.07)</td>
</tr>
<tr>
<td>16g=54Z 728 (3.24)</td>
<td>16g=54Z 914 (4.07)</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>TrusSteel Web Thickness</th>
<th>TrusSteel Chord Thickness</th>
</tr>
</thead>
<tbody>
<tr>
<td>22g=28SC</td>
<td>20g=33SC</td>
</tr>
<tr>
<td>20g=33Z 248 (1.10)</td>
<td>20g=33Z 248 (1.10)</td>
</tr>
<tr>
<td>18g=43Z 369 (1.64)</td>
<td>18g=43Z 369 (1.64)</td>
</tr>
<tr>
<td>16g=54Z 437 (1.94)</td>
<td>16g=54Z 437 (1.94)</td>
</tr>
</tbody>
</table>

General Notes:

1. 14AMD Double Shear™ Fasteners mentioned above consist of 14AMD82.125, 14AMDR2.375 and 14AMD2.625.
2. 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).
3. 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 self-drilling tapping screws and have a zinc plated and chromate finished corrosion protection applied in accordance with ASTM F1941.

Z-Web Fastener Placement

And Allowable Shear Loads

www.TrusSteel.com

Florida: 6750 Forum Drive, Suite 300 / Orlando, FL 32821 / (800) 726-0601
Missouri: 13723 Riverport Drive, Suite 202 / Maryland Heights, MO 63043 / (800) 326-4102

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