### Hanger Rod Assembly Detail

**Note:** Multiply above units by 25.4 for millimeters.

<table>
<thead>
<tr>
<th>Sprinkler Pipe Diameter &amp; Hanger Load</th>
<th>Sprinkler Pipe Diameter in. (mm)</th>
<th>Maximum Hanger Load lbs. (kN)</th>
<th>Threaded Rod Dia. in. (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>1/2 (25)</td>
<td>840 (3.74)</td>
<td>3/8 (10)</td>
</tr>
<tr>
<td>3</td>
<td>1/2 (25)</td>
<td>1060 (4.71)</td>
<td>3/8 (10)</td>
</tr>
<tr>
<td>4</td>
<td>1/2 (25)</td>
<td>1250 (5.60)</td>
<td>3/8 (10)</td>
</tr>
<tr>
<td>5</td>
<td>1/2 (25)</td>
<td>1700 (7.66)</td>
<td>1/2 (13)</td>
</tr>
</tbody>
</table>

B. Values given are based on 15" (3572mm) maximum hanger spacing.
C. For 3/8" (10mm) diameter threaded rod / nut, washer inside diameter = 7/16" (11mm) and outside diameter = 13/16" (21mm).

### General Notes:

1. SDS = self-drilling tapping screw. Screw spacing, end and edge distance is 3/4" (19mm) min.
2. The minimum yield strengths of materials are as follows (unless otherwise noted):
   - C-Stud Trapeze = 33ksi (228 MPa), Tube steel support posts = 45ksi (310 MPa),
   - Truss Chords = 55ksi (379 MPa).
3. Values shown are for the sprinkler pipe hanger only. Truss must be properly loaded for sprinkler pipe load. Refer to TrusSteel Technical Bulletin TB00.09.01, "Sprinkler Pipes – Truss Loading & Connections".
4. It is the responsibility of the Building Designer to verify that the hanger design given in this detail conforms with the overall sprinkler system support design.
5. Hanger loads were determined per NFPA 13 2016 "Standard For The Installation Of Sprinkler Systems" and assume schedule 40 steel pipe.
6. Pipe hanger spacing shall not exceed 12 ft (3658mm) for pipes up to and including 1-1/4 in. (32mm) diameter and 15 ft (4572mm) for pipes greater than 1-1/4 in. (32mm) diameter per NFPA 13 2016 "Standard For The Installation Of Sprinkler Systems".
7. Nut shall be grade A, HEX conforming to ASTM A563 and Washer shall conform to ASTM A456.
8. Cold-Formed Steel Calculations are per the AISI 2016 "North American Specifications for the Design of Cold-Formed Steel Structural Members" (S100-16).

### Double C-Stud Sprinkler Trapeze at Top Chord for 5" (127mm) Max. Diameter Pipe

- **Alpine TrusSteel**
- **www.TrusSteel.com**
- **Florida:** 6750 Forum Drive, Suite 305 / Orlando, FL 32821 / (800) 795-6001
- **Missouri:** 13723 Riverport Drive, Suite 200 / Maryland Heights, MO 63043 / (800) 356-4102

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:

- **TS049H**
- **Date:** 10/11/18