Hanger Parts Table			
Maximum Sprinkler Pipe Dia. 8 in. (203mm)			
Truss Chord Size	Trusses at 48" (1219mm) O.C.		
	Trapeze Member	Support Post	
TSC2.75	(2) 600S162-68 ^A	33W.75x1.5	
TSC3.00 or TSC4.00	(2) 600S162-68 ^A	33W1.5x1.5	
A. Grade 50 steel required.			

Double C-stud (unpunched) trapeze members. See hanger parts table for size. Space at 15ft (4572mm) maximum. Each end to extend 1/4" (6mm) minimum beyond truss chord. Trapeze must rest directly on bottom truss chord.

0

(2) #14SDS at each side,

at each end of trapeze. (TYP)

48" (1219mm) O.C. Maximum.

Truss bottom chords at

Note: Hanger rod assembly may be placed anywhere along the trapeze.

1/2" (12.7mm) diameter ASTM A307 threaded rod with washer and nut positioned through tube web stiffener (see hanger rod assembly detail, this sheet)

Washer inside diameter = 9/16" (14mm) Washer outside diameter = 1-1/16" (27mm)

TS tube vertical support posts. See hanger parts table for size. Minimum length to match depth of truss chord plus C-stud. Existing truss web may be used as trapeze support post provided it has been designed to support the load.

Sprinkler pipe trapeze. See hanger parts table for size. 33W1.5x1.5 45ksi web stiffener at appliedload. Length to match depth of trapeze.

4"x4"x3/8" ASTM A36 steel plate.

Attach plate to each C-stud

w/ (2) ITW Buildex TEKS5 12-24

(8) #14SDS at each side at web stiffener Maintain 3/4" (19mm) minimum vertical spacing and distance from end of stiffener and 7/8" (22mm) minimum horizontal spacing.

3/4"min. 7/8"

9/16" diameter

pre-drilled hole

at center of plate

Hanger Rod Assembly Detail Note: Multiply above units by 25.4 for millimeters.

Sprinkler Pipe Diameter & Hanger Load		
Sprinkler Pipe	Maximum Hanger	
Diameter in. (mm)	Load Ibs. (kN) ^B	
6 (152)	2630 (11.70)	
8 (203)	4060 (18.06)	

B. Values given are based on 15' (4572mm) maximum hanger spacing.

(8) #14SDS at each side. See hanger assembly detail General Notes: for spacing requirements. Sprinkler pipe support attached to rod.

- 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), TrusSteel 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 F436.
- 8. Cold-Formed Steel Calculations are per the AISI 2016 "North American Specifications for the Design of Cold-Formed Steel Structural Members" (S100-16).



at each end of trapeze. (TYP)

(2) #14SDS at each side of truss chord,

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Double C-Stud Sprinkler Trapeze at Bottom Chord for 8" (203mm) Max. Diameter Pipe

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:

TS0491

Date:

10/11/18

TrusSteel Detail Category:

Bottom Chord Sprinkler Hanger