

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

C-stud (unpunched) trapeze member. See hanger parts table for size. Each end shall extend 1/4" (6mm) min. beyond truss chord. Trapeze must rest directly on bottom truss chord. See hanger loading table for spacing.

3/8" (10mm) diameter, ASTM A307 threaded rod with washer and nut positioned through center of flange. Washer inside diameter = 7/16" (11mm) Washer outside diameter = 13/16" (21mm)

7/16" (11mm) diameter predrilled hole centered on flange

362S162-33 Web stiffener at applied load. Length to match trapeze depth.

(4) #10SDS at web stiffener. Space as shown. Maintain 9/16" (14mm) minimum distance from ends and edges of stiffener.

Sprinkler pipe support attached to rod.

(2) #10SDS at each end of trapeze. (TYP)

Truss bottom chords at 48" (1219mm) O.C. maximum.

(2) #10SDS each side of truss chord at each end of trapeze (TYP)

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

Truss Chord Size	Trusses at 24" (610mm) O.C.	Trusses at 48" (1219mm) O.C.	Support Post
	Trapeze Member	Trapeze Member	
TSC2.75	362S162-33 min.	362S162-54 min.	33W.75x1.5
TSC2.75	600S162-33 min.	600S162-33 min.	33W.75x1.5
TSC3.00 or TSC4.00	362S162-33 min.	362S162-54 min.	33W1.5x1.5
TSC3.00 or TSC4.00	600S162-33 min.	600S162-33 min.	33W1.5x1.5

Sprinkler Pipe Diameter in. (mm)	Maximum Hanger Load lbs. (kN)	Maximum Hanger Spacing ft (mm)
1 (25)	370 (1.65)	12 (3658)
1 1/4 (32)	430 (1.91)	12 (3658)
1 1/2 (38)	520 (2.31)	15 (4572)
2 (51)	630 (2.80)	15 (4572)

A. Values given are based on maximum hanger spacing.

General Notes:

1. SDS = self-drilling tapping screw. Screw spacing, end and edge distance is 9/16" (14mm) 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).



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C-Stud Sprinkler Trapeze at Bottom Chord for 2" (51mm) 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:

TS049C

Date:

10/11/18

TrusSteel Detail Category:

Bottom Chord Sprinkler Hanger