

TS tube vertical support posts. See hanger parts table for size. Minimum length to match the depth of truss chord plus trapeze.

C-stud 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" (10 mm) dia. ASTM A307 threaded rod with washer and nut positioned through center of flange.

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

(4) #10 SDS at web stiffener. Space as shown. Maintain 5/8" (16mm) minimum distance from ends and edges of stiffener.

Sprinkler pipe support attached to rod.

(2) #10 SDS typical each end of trapeze.

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

(2) #10 SDS each side of truss chord typical each end of trapeze.

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

Hanger Parts Table			
Maximum Sprinkler Pipe Dia. 2 in. (51mm)			
Truss Chord Size	Trusses at 24" (610mm) O.C.		Trusses at 48" (1219mm) O.C.
	Trapeze Member		Support Post
TSC2.75	362S162-33 min.		33W.75x1.5
TSC2.75	600S162-33 min.		33W.75x1.5
TSC4.00	362S162-33 min.		33W1.5x1.5
TSC4.00	600S162-33 min.		33W1.5x1.5

Hanger Loading Table		
2 in. (51mm) Maximum Diameter Pipe		
Sprinkler Pipe Diameter in. (mm)	Maximum Allowable 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)

* Allowable hanger loads based on maximum hanger spacing. (see note 8)

General Notes:

1. SDS = self-drilling tapping screw. Screw spacing, end and edge distance is 5/8" (16mm) min.
2. The minimum yield strengths of materials are as follows (unless otherwise noted): C-Stud Trapeze = 33ksi, Tube steel support posts = 45ksi, TrusSteel Chords = 55ksi.
3. This detail is only for the design of the sprinkler pipe hanger. Contact a TrusSteel engineer for the proper truss loading procedures.
4. It is the responsibility of the architect or engineer of record to review this hanger design to verify it conforms with the overall sprinkler system support design.
5. Allowable hanger load determined from the National Fire Protection Association NFPA13 1999 titled "Installation of Sprinkler Systems".
6. Maximum sprinkler pipe size that can be supported by this detail is 2" (51mm) in diameter.
7. Pipe weight determined using schedule 40 steel pipe.
8. Pipe hanger spacing not to exceed 12' (3658mm) for pipes up to and including 1-1/4" (32mm) diameter and 15' (4572mm) for pipes greater than 1-1/4" (32mm) diameter per NFPA13 1999.
9. Vertical truss web may be used as trapeze support post provided it is designed to carry additional sprinkler loads per proper truss loading procedures.



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C-Stud Sprinkler Trapeze at Bottom Chord for 2" (51mm) Max. Diameter Pipe

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 ITW Building Components Group, Inc.



Standard Detail:
TS049C

Date:
06/04/07

TrusSteel Detail Category:
Bottom Chord Sprinkler Hanger