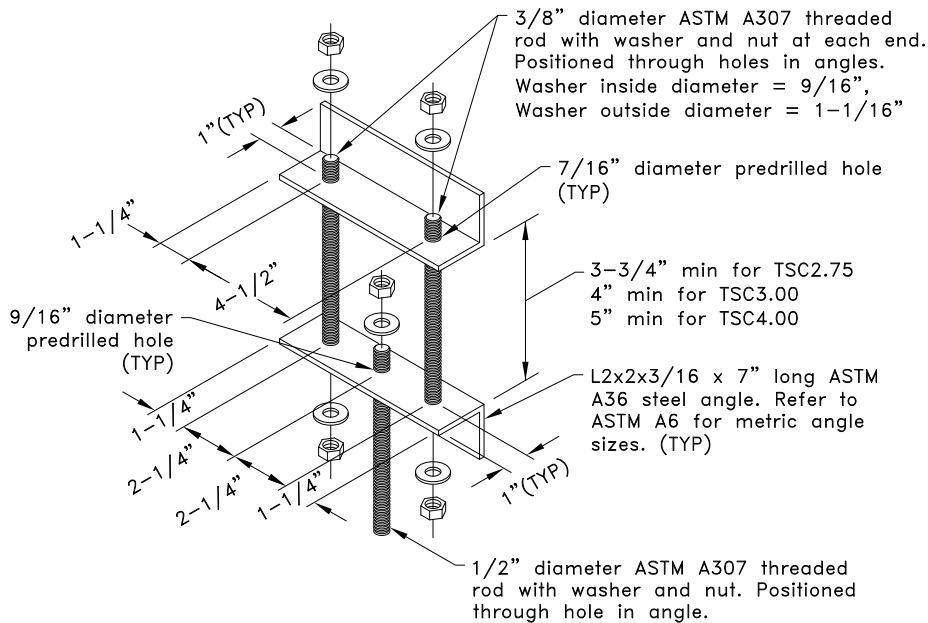
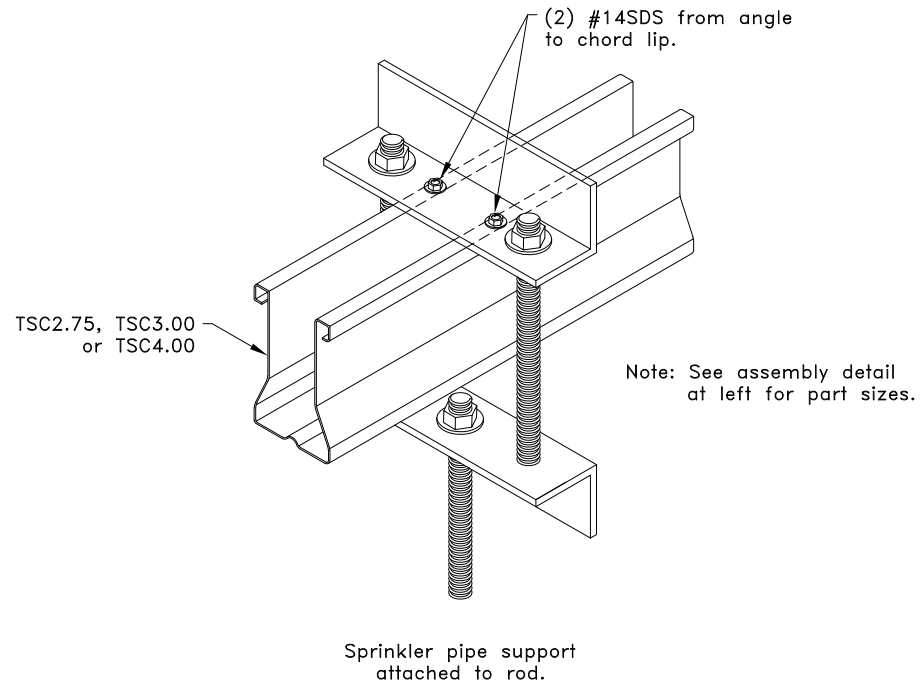


SPRINKLER PIPE DIAMETERS AND HANGER LOADS^A

Max. Sprinkler Pipe Diameter, in. (mm)	Max. Hanger Load lbs (kN)
4 (102)	1480 (6.58)
6 (152)	2630 (11.70)
8 (203)	4060 (18.06)

A. Values given are for maximum hanger spacing of 15' (4572 mm)



Note: Multiply above units by 25.4 for millimeters.

General Notes:

1. SDS = self-drilling tapping screw
2. 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".
3. 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.
4. Hanger loads were determined per NFPA 13 2022 "Standard For The Installation Of Sprinkler Systems" and assume schedule 40 steel pipe.
5. 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 2022 "Standard For The installation of Sprinkler Systems".
6. Nut shall be grade A, HEX conforming to ASTM A563 and Washer shall conform to ASTM F436.
7. Cold-Formed Steel calculations are per the 2020 supplement to AISI 1616 "North American Specification for the Design of Cold-Formed Steel Structural Members" (S100-16/S2-20).



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Bottom Chord Sprinkler Pipe Hanger for 8" (203mm) Maximum 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:

TS049

Date:

06/01/22

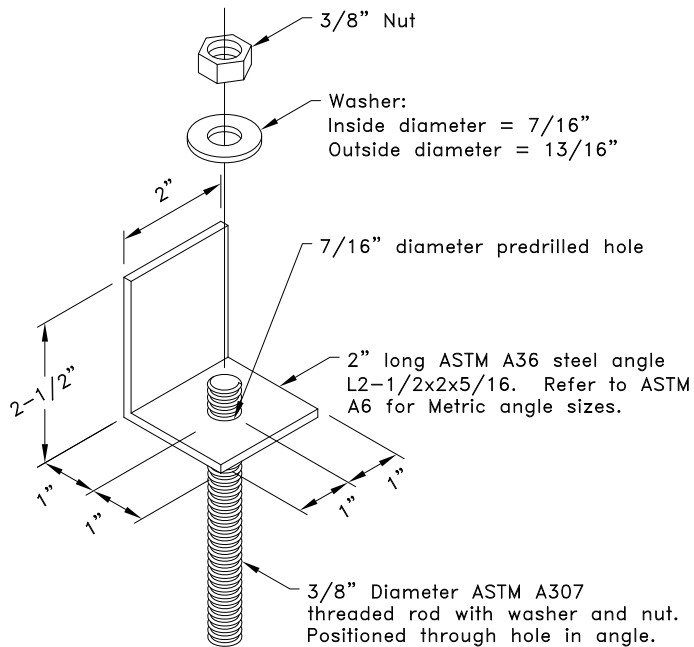
TrusSteel Detail Category:

Sprinkler Pipe Hangers

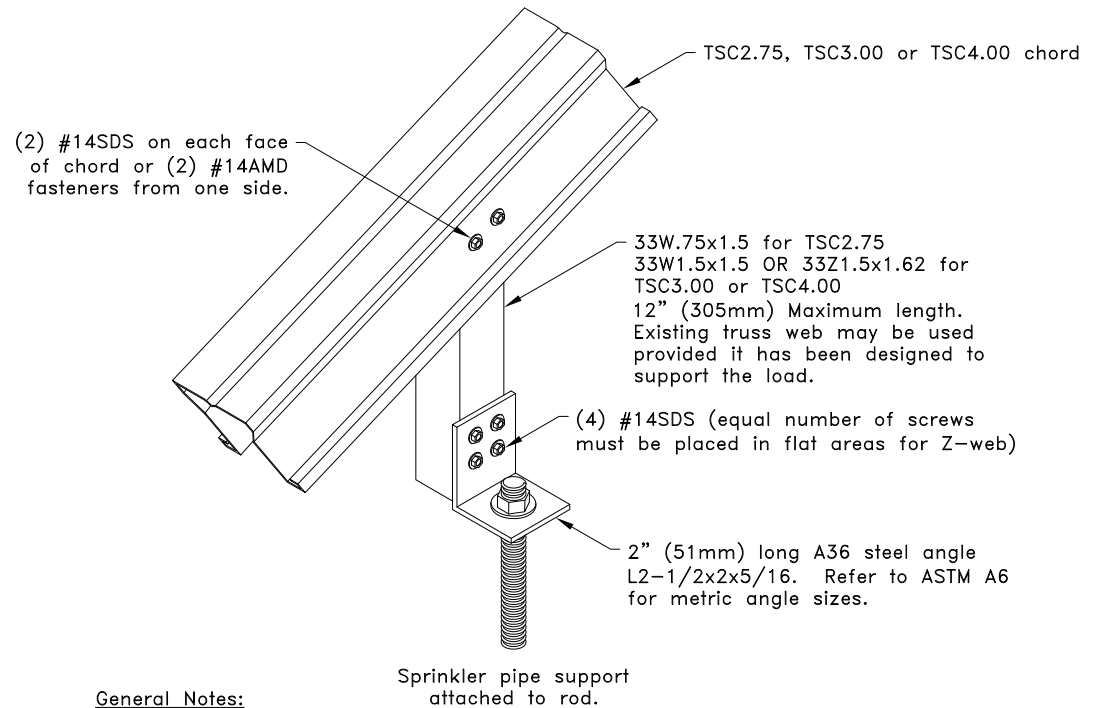
SPRINKLER PIPE DIAMETERS AND
HANGER LOADS^A

Max. Sprinkler Pipe Diameter, in. (mm)	Max. Hanger Load lbs (kN)
1-1/2 (38)	520 (2.31)

A. Values given are for maximum hanger spacing of 15' (4572 mm)



Note: Multiply above units by 25.4 for millimeters.



General Notes:

1. SDS = self-drilling tapping screw
2. Screw spacing and end distance is 3/4" (19mm).
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 2022 "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 2022 "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 2020 supplement to AISI 2016 "North American Specification for the Design of Cold-Formed Steel Structural Members" (S100-16/S2-20).



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Top Chord Sprinkler Pipe
Hanger For 1-1/2" (38mm)
Maximum 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:
TS049A

Date:
06/01/22

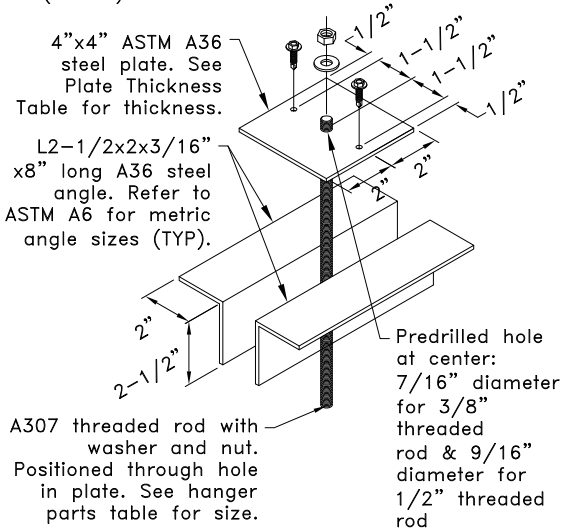
TrusSteel Detail Category:
Sprinkler Pipe Hangers

SPRINKLER PIPE DIAMETERS AND HANGER LOADS ^A	
Max. Sprinkler Pipe Diameter, in. (mm)	Max. Hanger Load lbs (kN)
2 (51)	640 (2.85)
4 (102)	1480 (6.58)
6 (152)	2630 (11.70)
8 (203)	4060 (18.06)

A. Values given are for maximum hanger spacing of 15' (4572mm)

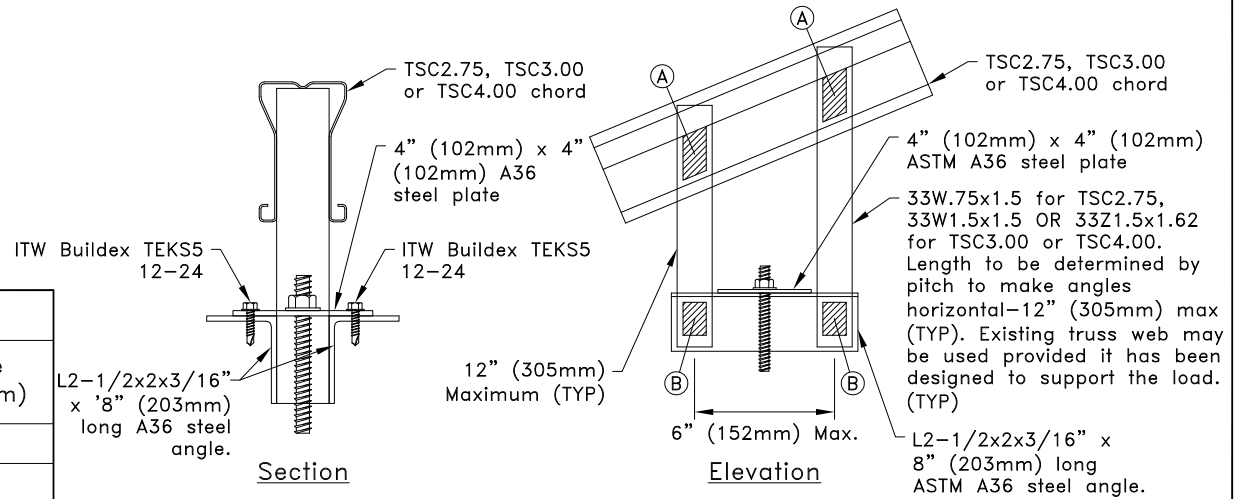
Plate Thickness Table		
Max. Sprinkler Pipe Diameter, in. (mm)	Threaded Rod Diameter in. (mm) ^B	ASTM A36 Plate Thickness in. (mm)
2 (51)	3/8 (10)	3/16 (5)
4 (102)	3/8 (10)	1/4 (6)
6 (152)	1/2 (13)	5/16 (8)
8 (203)	1/2 (13)	3/8 (10)

B. For 3/8" (10mm) diameter threaded rod / nut, washer inside diameter = 7/16" (11mm) and outside diameter = 13/16" (21mm). For 1/2" (13mm) diameter threaded rod / nut, washer inside diameter = 9/16" (14mm) and outside diameter = 1-1/16" (27mm).



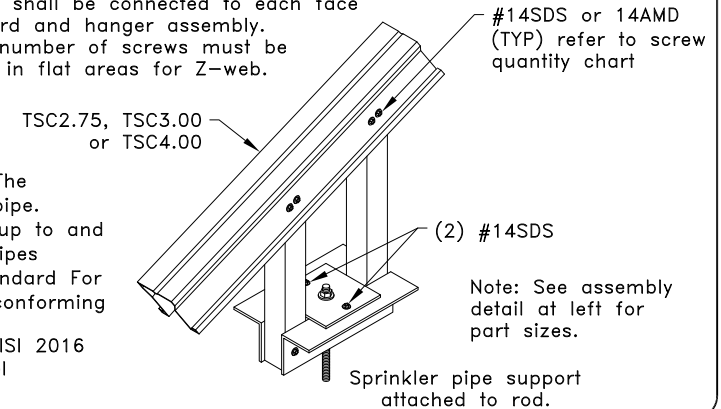
General Notes:

1. SDS = self-drilling tapping screw
2. Screw spacing and end distance is 3/4" (19mm).
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 2022 "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 2022 "Standard For The installation of Sprinkler Systems". Nut shall be grade A, HEX conforming to ASTM A563 and Washer shall conform to ASTM F436.
7. Cold-Formed Steel calculations are per the 2020 supplement to AISI 2016 "North American Specification for the Design of Cold-Formed Steel Structural Members" (S100-16/S2-20).



Max. Sprinkler Pipe Diameter, in. (mm)	Screws	
	A	B
2 (51)	2	2
4 (102)	2	2
6 (152)	3	3
8 (203)	4	5

-Screws shall be connected to each face of chord and hanger assembly.
-Equal number of screws must be placed in flat areas for Z-web.



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Top Chord Sprinkler Pipe Hanger For 8" (203mm) Maximum 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:
TS049B

Date:
06/01/22

TrusSteel Detail Category:
Sprinkler Pipe Hangers

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 2022 "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 2022 "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 2020 supplement to AISI 2016 "North American Specification for the Design of Cold-Formed Steel Structural Members" (S100-16/S2-20).



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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:
06/01/22

TrusSteel Detail Category:
Bottom Chord Sprinkler Hanger

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

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

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 chord

Sprinkler pipe support
attached to rod.

(2) #10SDS each face (TYP)

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

(2) #10SDS each face (TYP)

Note: Hanger rod shall be installed at a minimum of 4in. (102mm) from
inside edge of truss bottom chord for TSC2.75 chords and a minimum
of 6in. (152mm) for TSC3.00 or TSC4.00 chords.

Hanger Parts Table				
Truss Chord Size	Trusses at 24" (610mm) O.C.		Trusses at 48" (1219mm) O.C.	
	Trapeze Member	Support Post	Trapeze Member	Support Post
TSC2.75	28TSC2.75 min.	33W.75x.75	33TSC4.00 min.	33W.75x1.5
TSC3.00 or TSC4.00	28TSC3.00 or 28TSC4.00 min.	33W1.5x1.5	43TSC3.00 or 33TSC4.00 min.	33W1.5x1.5

Sprinkler Pipe Diameter & Hanger Load ^A		
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):
Tube steel support posts = 45ksi (310 MPa), TrusSteel Chords and Trapeze = 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 2022 "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 2022 "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 2020 supplement to AISI 2016 "North American
Specification for the Design of Cold-Formed Steel Structural Members" (S100-16/S2-20).



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TSC 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:
TS049D

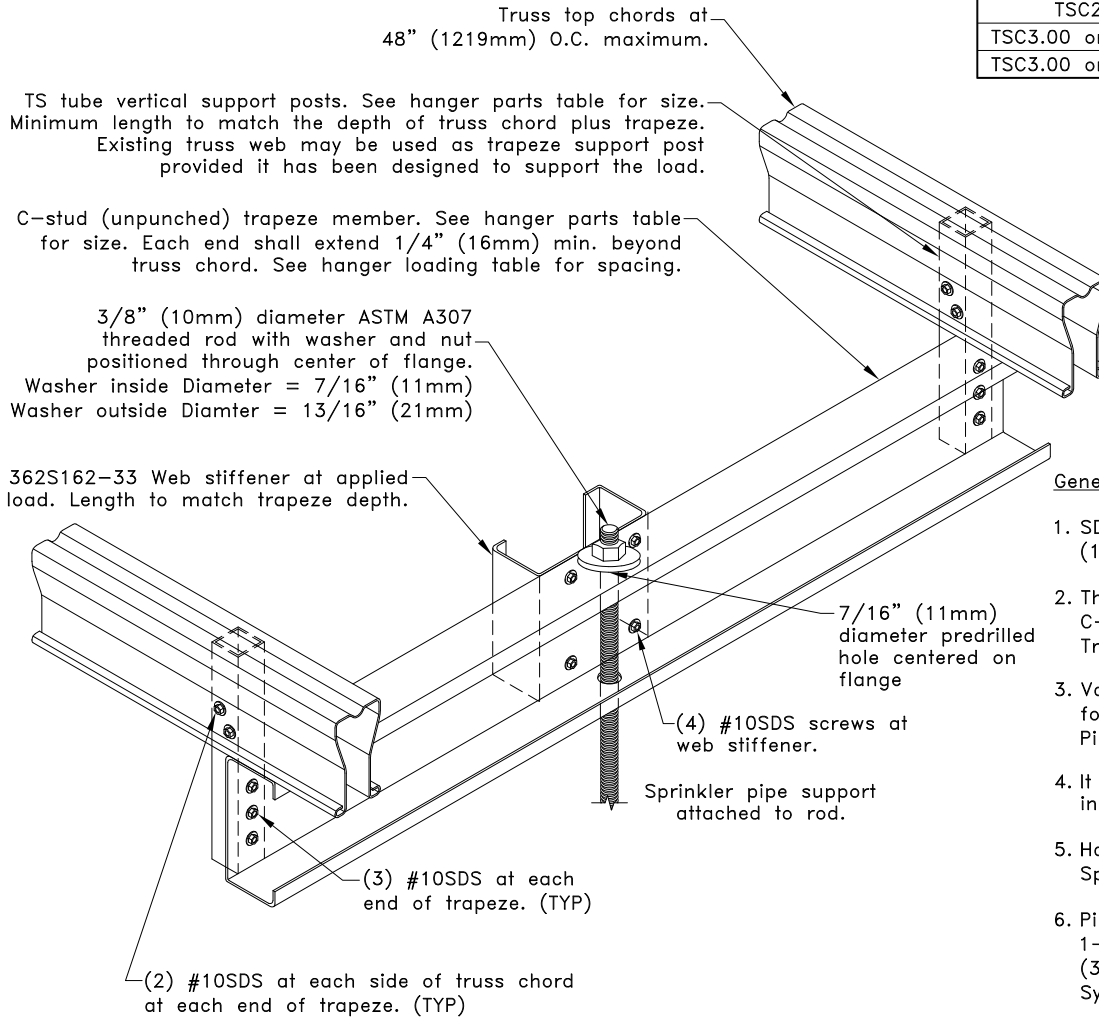
Date:
06/01/22

TrusSteel Detail Category:
Bottom Chord Sprinkler Hanger

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

Sprinkler Pipe Diameter & Hanger Load ^A		
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.



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

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 2022 "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 2022 "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 2020 supplement to AISI 1616 "North American Specification for the Design of Cold-Formed Steel Structural Members" (S100-16/S2-20).



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C-Stud Sprinkler Trapeze at Top 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:
TS049E

Date:
06/01/22

TrusSteel Detail Category:
Top Chord Sprinkler Hanger

Hanger Parts Table				
Truss Chord Size	Trusses at 24" (610mm) O.C.		Trusses at 48" (1219mm) O.C.	
	Trapeze Member	Support Post	Trapeze Member	Support Post
TSC2.75	28TSC2.75 min.	33W.75x.75	33TSC4.00 min.	33W.75x1.5
TSC3.00 or TSC4.00	28TSC3.00 or 28TSC4.00 min.	33W1.5x1.5	43TSC3.00 or 33TSC4.00 min.	33W1.5x1.5

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

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

TSC trapeze member. Each end shall extend 1/4" (6mm) minimum beyond truss chord. See hanger parts table for size. See hanger loading table for spacing.

3/8" (10mm) diameter ASTM A307 threaded rod with washer and nut (see assembly detail)

Washer inside diameter = 7/16" (11mm)
Washer outside diameter = 13/16" (21mm)

TS tube web stiffener at applied load (see assembly detail)

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

(2) #10SDS each side at tube web stiffener. See assembly detail for spacing requirements.

Sprinkler pipe support attached to rod.

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

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

Note: Hanger rod shall be installed at a minimum of 4in. (102mm) from inside edge of truss bottom chord for TSC2.75 chords and a minimum of 6in. (152mm) for TSC3.00 or TSC4.00 chords.

TS tube web stiffener at applied load.
33W.75x.75 for TSC2.75 trapeze and 33W1.5x1.5 for TSC3.00 or TSC4.00 trapeze

Sprinkler pipe trapeze. See hanger parts table for size.

(2) #10 SDS at each side at web stiffener.

Hanger Rod Assembly Detail

Note: Multiply above units by 25.4 for millimeters.

Sprinkler Pipe Diameter & Hanger Load ^A		
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)

General Notes:

A. Values given are based on maximum hanger spacing.

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):
Tube steel support posts = 45ksi (310 MPa), TrusSteel Chords and Trapeze = 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 2022 "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 2022 "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 2020 supplement to AISI 1616 "North American Specification for the Design of Cold-Formed Steel Structural Members" (S100-16/S2-20).



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TSC Sprinkler Trapeze at Top 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:

TS049F

Date:

06/01/22

TrusSteel Detail Category:

Top Chord Sprinkler Hanger

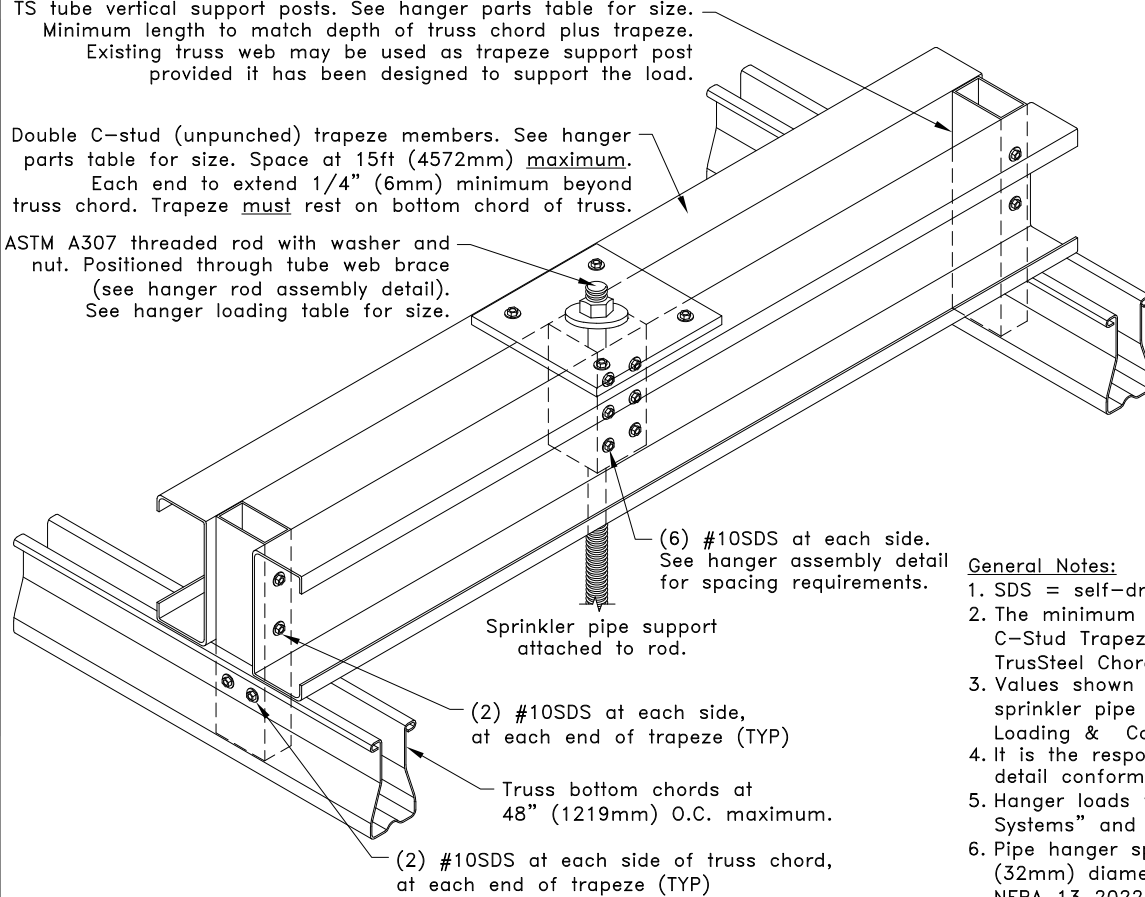
Hanger Parts Table			
Maximum Sprinkler Pipe Dia. 5 in. (127mm)			
Truss Chord Size	Trusses at 24" (610mm) O.C.	Trusses at 48" (1219mm) O.C.	Support Post
	Trapeze Member	Trapeze Member	
TSC2.75	(2) 362S162-43	(2) 362S162-68 ^A	33W.75x1.5
TSC2.75	(2) 600S162-33	(2) 600S162-43	33W.75x1.5
TSC3.00 or TSC4.00	(2) 362S162-43	(2) 362S162-68 ^A	33W1.5x1.5
TSC3.00 or TSC4.00	(2) 600S162-33	(2) 600S162-43	33W1.5x1.5

A. Grade 50 steel required.

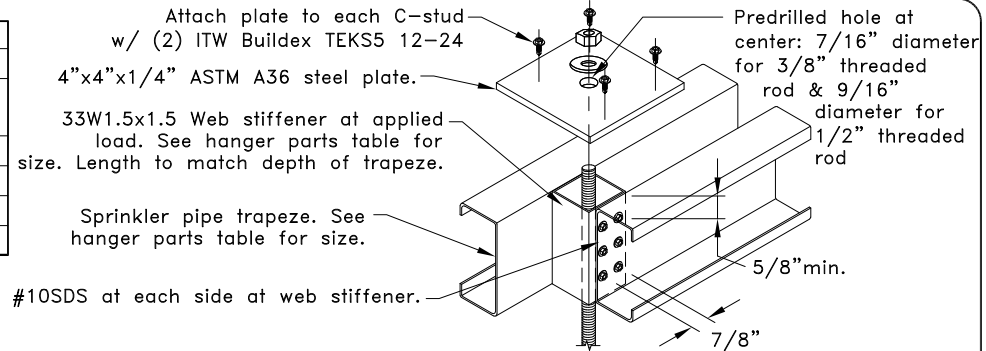
TS tube vertical support posts. See hanger parts table for size. Minimum length to match depth of truss chord plus trapeze. Existing truss web may be used as trapeze support post provided it has been designed to support the load.

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 on bottom chord of truss.

ASTM A307 threaded rod with washer and nut. Positioned through tube web brace (see hanger rod assembly detail). See hanger loading table for size.



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



Hanger Rod Assembly Detail

Note: Multiply above units by 25.4 for millimeters.

Sprinkler Pipe Diameter & Hanger Load		
Sprinkler Pipe Diameter in. (mm)	Maximum Hanger Load lbs. (kN) ^B	Threaded Rod Dia. in. (mm) ^C
2 1/2 (25)	840 (3.74)	3/8 (10)
3 (76)	1060 (4.71)	3/8 (10)
3 1/2 (89)	1260 (5.60)	3/8 (10)
4 (102)	1480 (6.58)	3/8 (10)
5 (127)	2010 (8.94)	1/2 (13)

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

C. For 3/8" (10mm) diameter threaded rod / nut, washer inside diameter = 7/16" (11mm) and outside diameter = 13/16" (21mm). For 1/2" (13mm) diameter threaded rod / nut, washer inside diameter = 9/16" (14mm) and outside diameter = 1-1/16" (27mm).

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 2022 "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 2022 "Standard For The installation of Sprinkler Systems". Nut shall be grade A, HEX conforming to ASTM A563 and Washer shall conform to ASTM F436.
7. Cold-Formed Steel calculations are per the 2020 supplement to AISI 2016 "North American Specification for the Design of Cold-Formed Steel Structural Members" (S100-16/S2-20).



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155 Harlem Ave., North Building, 4th Floor / Glenview, IL 60025 / (800) 755-6001

Double C-Stud Sprinkler Trapeze at Bottom Chord for 5" (127mm) 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:

TS049G

Date:

06/01/22

TrusSteel Detail Category:

Bottom Chord Sprinkler Hanger

Hanger Parts Table			
Maximum Sprinkler Pipe Dia. 5 in. (127mm)			
Truss Chord Size	Trusses at 24" (610mm) O.C.	Trusses at 48" (1219mm) O.C.	Support Post
	Trapeze Member	Trapeze Member	
TSC2.75	(2) 362S162-43	(2) 362S162-68 ^A	33W.75x1.5
TSC2.75	(2) 600S162-33	(2) 600S162-43	33W.75x1.5
TSC3.00 or TSC4.00	(2) 362S162-43	(2) 362S162-68 ^A	33W1.5x1.5
TSC3.00 or TSC4.00	(2) 600S162-33	(2) 600S162-43	33W1.5x1.5

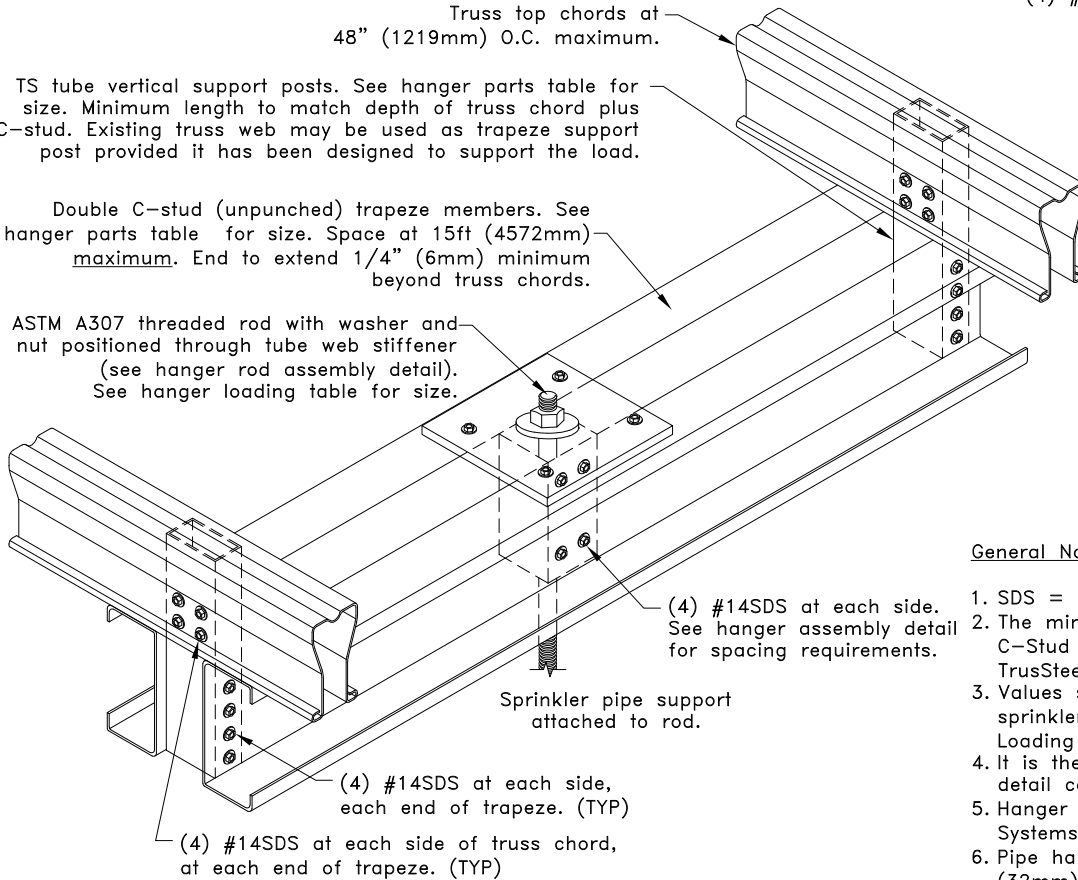
A. Grade 50 steel required.

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

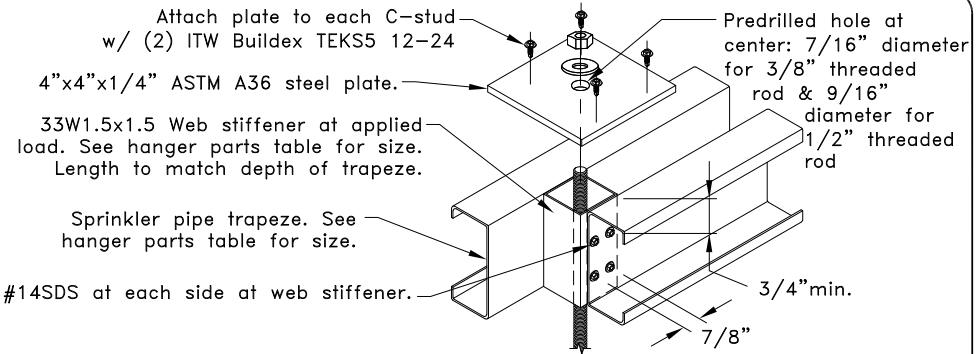
TS tube vertical support posts. See hanger parts table for size. Minimum length to match depth of truss chord plus C-stud. Existing truss web may be used as trapeze support post provided it has been designed to support the load.

Double C-stud (unpunched) trapeze members. See hanger parts table for size. Space at 15ft (4572mm) maximum. End to extend 1/4" (6mm) minimum beyond truss chords.

ASTM A307 threaded rod with washer and nut positioned through tube web stiffener (see hanger rod assembly detail). See hanger loading table for size.



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



Hanger Rod Assembly Detail

Note: Multiply above units by 25.4 for millimeters.

Sprinkler Pipe Diameter & Hanger Load		
Sprinkler Pipe Diameter in. (mm)	Maximum Hanger Load lbs. (kN) ^B	Threaded Rod Dia. in. (mm) ^C
2 1/2 (25)	840 (3.74)	3/8 (10)
3 (76)	1060 (4.71)	3/8 (10)
3 1/2 (89)	1260 (5.60)	3/8 (10)
4 (102)	1480 (6.58)	3/8 (10)
5 (127)	2010 (8.94)	1/2 (13)

B. Values given are based on 15' (4572mm) maximum hanger spacing.
 C. For 3/8" (10mm) diameter threaded rod / nut, washer inside diameter = 7/16" (11mm) and outside diameter = 13/16" (21mm).
 For 1/2" (13mm) diameter threaded rod / nut, washer inside diameter = 9/16" (14mm) and outside diameter = 1-1/16" (27mm).

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),
 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 2022 "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 2022 "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 2020 supplement to AISI 2016 "North American Specification for the Design of Cold-Formed Steel Structural Members" (S100-16/S2-20).



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155 Harlem Ave., North Building, 4th Floor / Glenview, IL 60025 / (800) 755-6001

Double C-Stud Sprinkler Trapeze at Top Chord for 5" (127mm) 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:

TS049H

Date:

06/01/22

TrusSteel Detail Category:

Top Chord Sprinkler Hanger

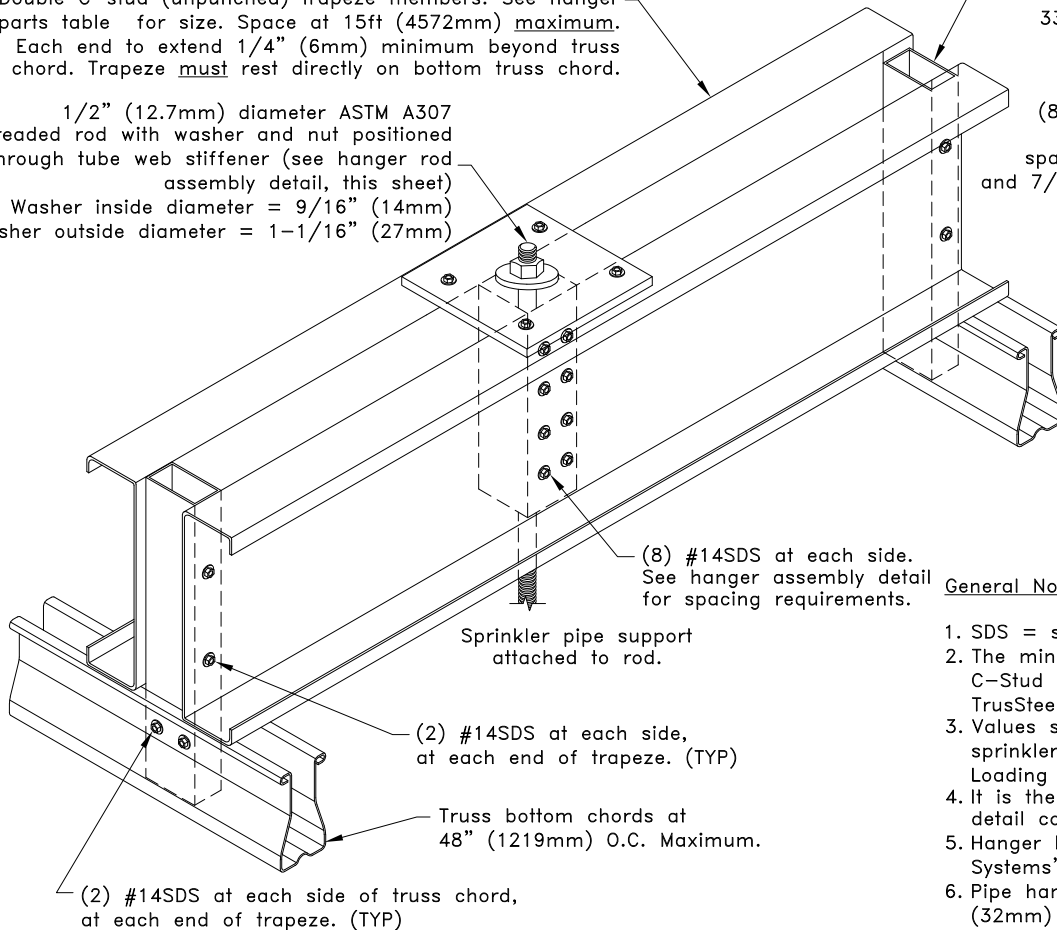
Hanger Parts Table		
Maximum Sprinkler Pipe Dia. 8 in. (203mm)		
Truss Chord Size	Trusses at 48" (1219mm) O.C.	
	Trapeze Member	Support Post
TSC2.75	(2) 600S162-68 ^A	33W.75x1.5
TSC3.00 or TSC4.00	(2) 600S162-68 ^A	33W1.5x1.5

A. Grade 50 steel required.

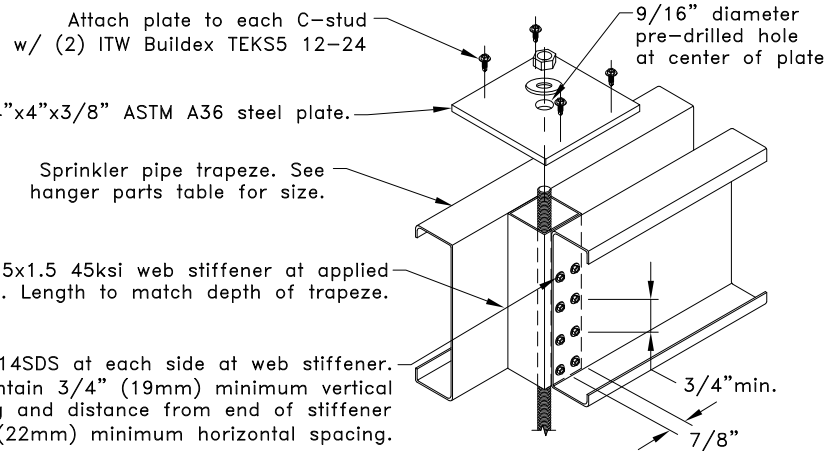
Double C-stud (unpunched) trapeze members. See hanger parts table for size. Space at 15ft (4572mm) maximum. Each end to extend 1/4" (6mm) minimum beyond truss chord. Trapeze must rest directly on bottom truss chord.

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.



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



Hanger Rod Assembly Detail

Note: Multiply above units by 25.4 for millimeters.

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

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

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), 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 2022 "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 2022 "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 2020 supplement to AISI 2016 "North American Specification for the Design of Cold-Formed Steel Structural Members" (S100-16/S2-20).



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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:

TS049I

Date:

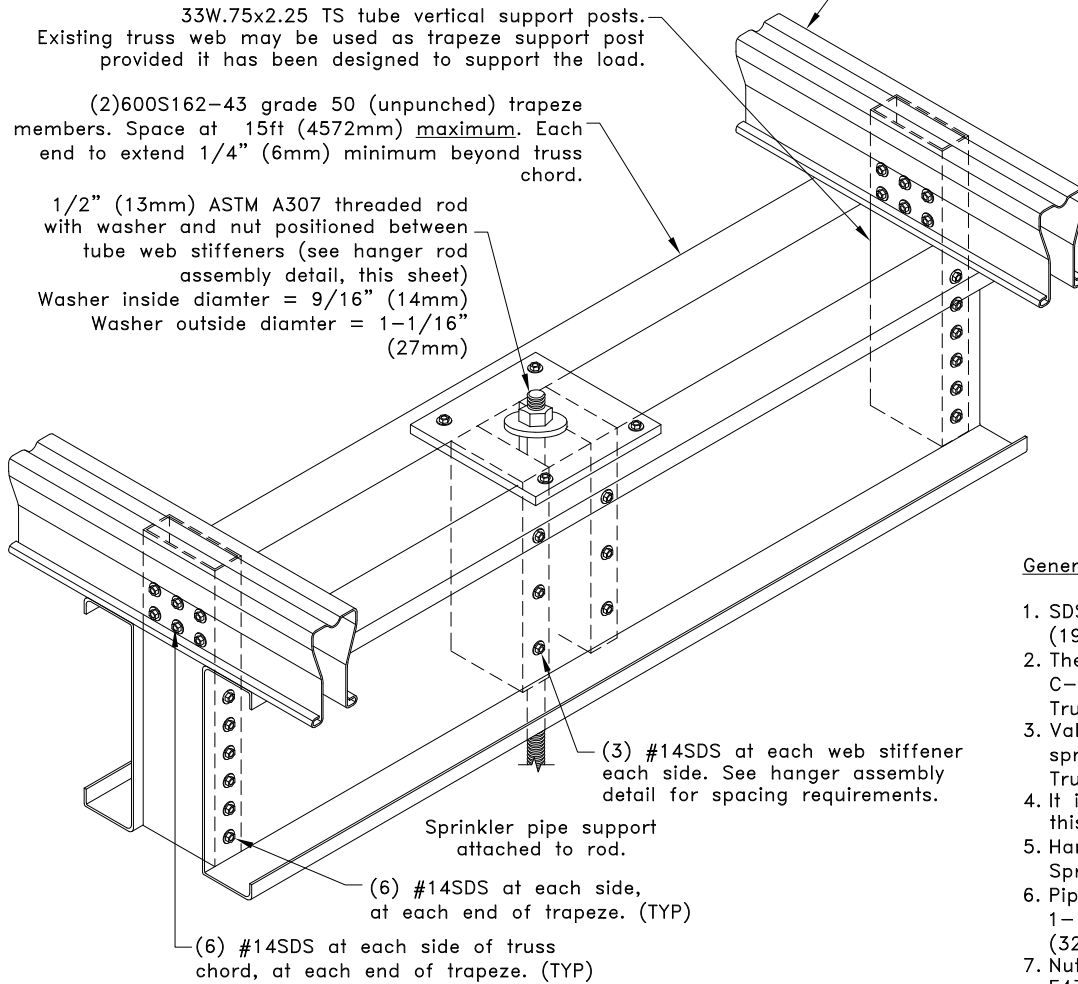
06/01/22

TrusSteel Detail Category:

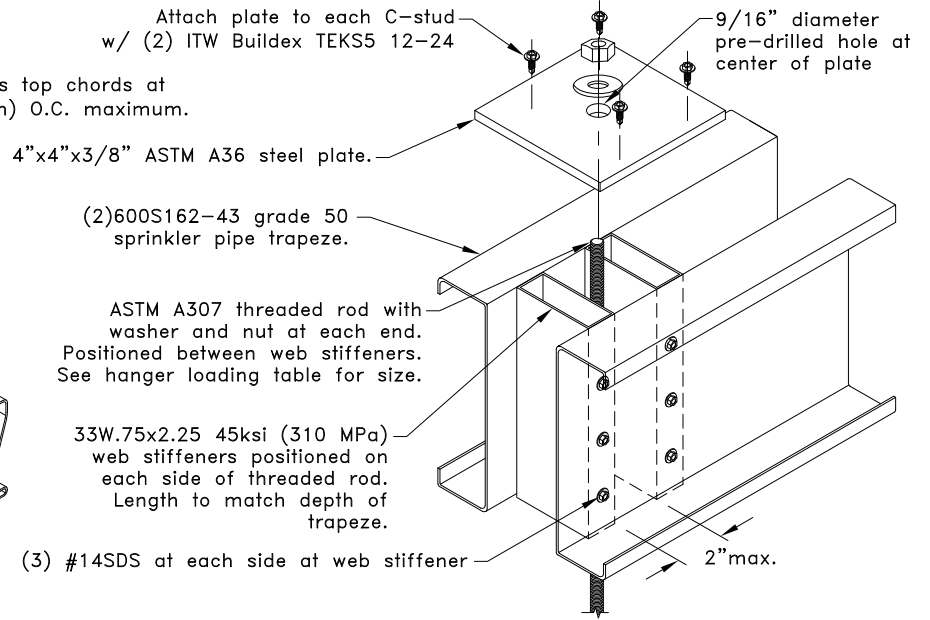
Bottom Chord Sprinkler Hanger

Sprinkler Pipe Diameter & Hanger Load	
Sprinkler Pipe Diameter in. (mm)	Maximum Hanger Load lbs. (kN) ^A
6 (152)	2630 (11.70)

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



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



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

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 = 50ksi (345 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 2022 "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 2022 "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 2020 supplement to AISI 2016 "North American Specification for the Design of Cold-Formed Steel Structural Members" (S100-16/S2-20).



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Double C-Stud Sprinkler Trapeze at TSC2.75 Top Chord for 6" (152mm) 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:
TS049J

Date:
06/01/22

TrusSteel Detail Category:
Top Chord Sprinkler Hanger

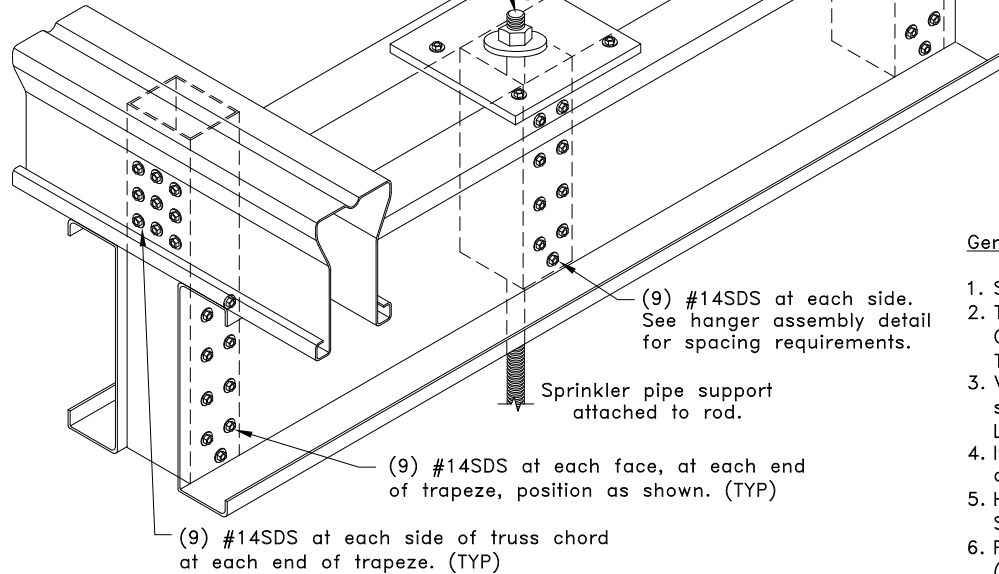
Sprinkler Pipe Diameter & Hanger Load	
Sprinkler Pipe Diameter in. (mm)	Maximum Hanger Load lbs. (kN) ^A
6 (152)	2630 (11.70)
8 (203)	4060 (18.06)

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

47W1.5x2.5 TS tube vertical support posts. Minimum length to match chord depth plus trapeze. Existing truss web may be used as trapeze support post provided it has been designed to support the load.

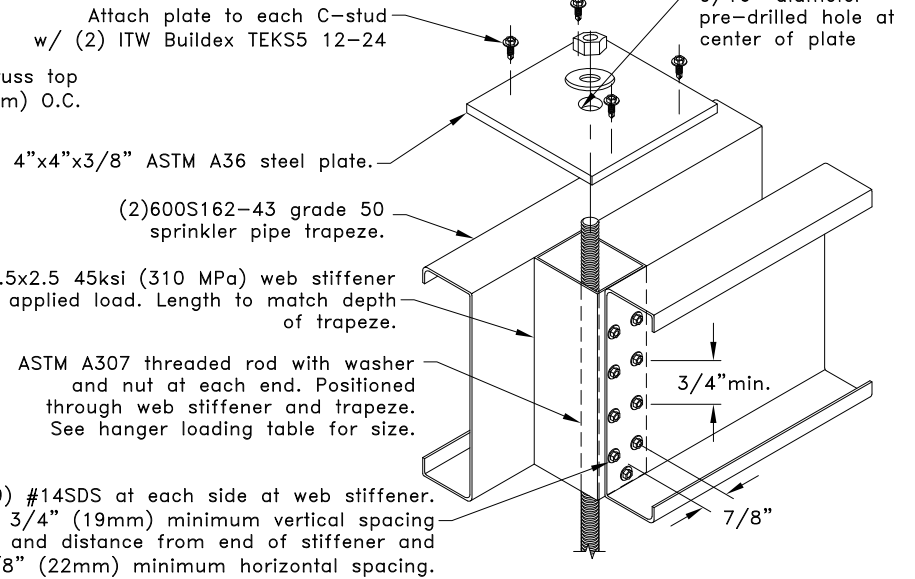
(2)600S162-68 grade 50 (unpunched) trapeze members. Space at 15ft (4572mm) maximum. Each end to extend 1/4" (6mm) minimum beyond truss chord.

1/2" (13mm) ASTM A307 threaded rod with washer and nut positioned between tube web stiffeners (see hanger rod assembly detail, this sheet)
Washer inside diameter = 9/16" (14mm)
Washer outside diameter = 1-1/8" (27mm)



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

TSC3.00 or TSC4.00 Truss top chords at 48" (1219mm) O.C. maximum.



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

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 = 50ksi (345 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 2022 "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 2022 "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 2020 supplement to AISI 2016 "North American Specification for the Design of Cold-Formed Steel Structural Members" (S100-16/S2-20).



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Double C-Stud Sprinkler Trapeze at TSC3.00 or TSC4.00 Top Chord for 8" (203mm) Max. Diameter Pipe

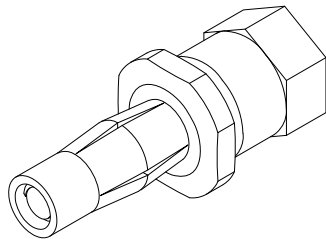
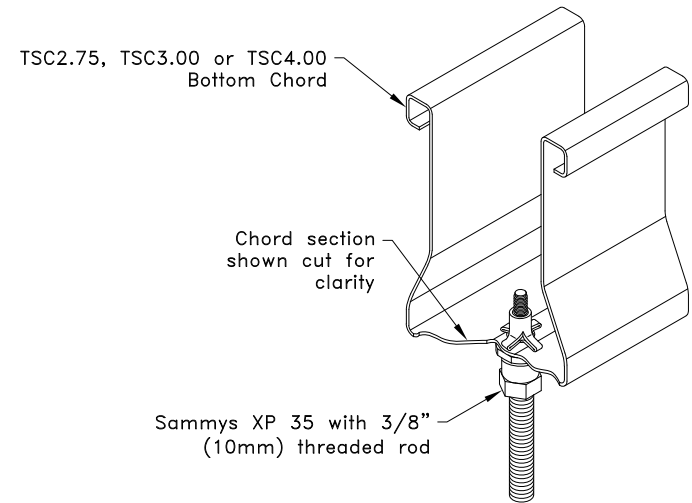
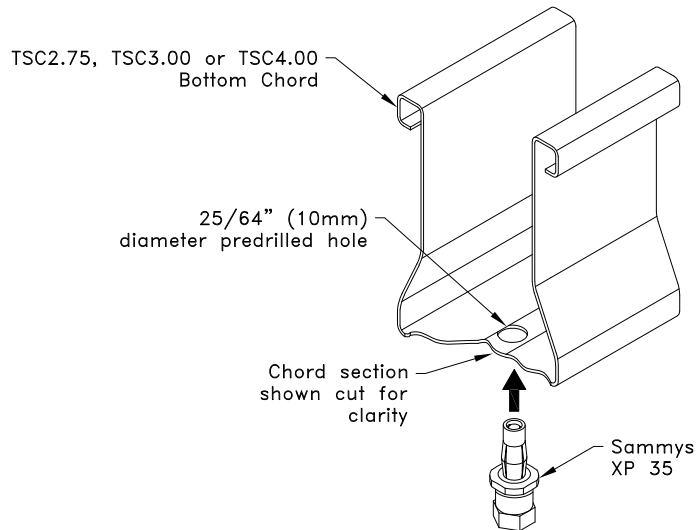
Alpine, a division of ITW Building Components Group, Inc. shall not be responsible for any performance failure in a connection due to a deviation from this detail. Any variation from this detail shall be approved in advance by Alpine, a division of ITW Building Components Group, Inc.

Standard Detail:
TS049K

Date:
06/01/22

TrusSteel Detail Category:
Top Chord Sprinkler Hanger

Bottom Chord	Max. Sprinkler Pipe Diameter, in. (mm)
28TSC2.75, 28TSC3.00 or 28TSC4.00	2 (51)
33TSC2.75, 33TSC3.00 or 33TSC4.00	3 (76)
43TSC2.75, 43TSC3.00 or 43TSC4.00	2-1/2 (64)
54TSC3.00 or 54TSC4.00	3-1/2 (89)
68TSC4.00 or 97TSC4.00	4 (102)



Sammys X-Press 35
(XP 35)

General Notes:

1. Truss must be properly loaded for sprinkler pipe load. Refer to TrusSteel Technical Bulletin TB00.09.01, "Sprinkler Pipes - Truss Loading & Connections".
2. 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.
3. Refer to TB07.09.20, "Attachment of Mechanical Systems to TrusSteel Trusses" for acceptable location of hole.
4. Connections determined in accordance with UL 203 document titled "Standard For Pipe Hanger Equipment For Fire Protection Service", and assume Schedule 40 steel pipe.
5. 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 2022 "Standard For The installation of Sprinkler Systems".



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155 Harlem Ave., North Building, 4th Floor / Glenview, IL 60025 / (800) 755-6001

Bottom Chord Sprinkler Pipe Hanger
for 4" (102mm) Max. Diameter Pipe
Using Sammys X-Press 35 (XP 35)

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:
TS049L

Date:
06/01/22

TrusSteel Detail Category:
Sprinkler Pipe Hangers