Systems™ Scaffold
Technical Manual

SYS

BRAND SAFWAY™

⚠WARNING

THIS DOCUMENT IS INTENDED FOR USE BY EXPERIENCED SCAFFOLD ENGINEERS. USE BY UNQUALIFIED PERSONS MAY RESULT IN DEATH, SERIOUS PERSONAL INJURY OR PROPERTY DAMAGE.

LOADING INFORMATION CONTAINED IN THIS DOCUMENT IS BASED UPON THE LOAD-CARRYING CAPACITY OF THE INDIVIDUAL COMPONENTS. THE TOTAL LOADS (COMPONENT WEIGHT, PLANK WEIGHT, LIVE LOAD, MATERIAL LOAD, WIND LOAD, ETC.) TO BE IMPOSED ON THE COMPLETE ASSEMBLY MUST BE CONSIDERED. ALL LOADS ON INDIVIDUAL MEMBERS ARE TRANSMITTED TO OTHER COMPONENTS AND ULTIMATELY TO THE GROUND. COMPENSATION FOR THESE CUMULATIVE VERTICAL AND HORIZONTAL LOADS MUST BE PROVIDED FOR EACH INDIVIDUAL SCAFFOLD APPLICATION.

⚠WARNING

SERIOUS INJURY OR DEATH CAN RESULT FROM YOUR FAILURE TO FAMILIARIZE YOURSELF, AND COMPLY WITH ALL APPLICABLE SAFETY REQUIREMENTS OF FEDERAL, STATE, PROVINCIAL AND LOCAL REGULATIONS BEFORE ERECTING, USING OR DISMANTLING THIS SCAFFOLD.

⚠WARNING

FALL ARREST EQUIPMENT ATTACHED TO SCAFFOLD MAY NOT PREVENT SERIOUS INJURY OR DEATH IF A FALL OCCURS.

Symbol Legend

℄ Denotes Centerline of Horizontal or Vertical Tubes

□ Material - See Page 44

○ Label - See Page 41-42

▲ Manufacturing Date Code Location

This document is subject to periodic revision and updating. Before designing scaffolds with Systems™ Scaffold components, contact BrandSafway to be sure you are using the most current revision.
Contact BrandSafway for all scaffold loading not covered in this document.
THIS DOCUMENT IS NOT TO BE REPRODUCED IN PART OR IN WHOLE.

All drawings in this guide are for illustrative purposes only. This guide is intended for general information purposes only. Because of the many variables which affect the performance of the product line, some of the information in this brochure may not apply. For specific applications, contact BrandSafway.

Note: All scaffolds shall be erected, modified and dismantled only under the supervision of a Competent Person. Erection, use, maintenance and disassembly must conform to current manufacturer's instructions as well as all federal, state, provincial and local regulations. Copies of complete Safety Guidelines for these and other products are available from your local BrandSafway branch.

BrandSafway Systems™ Scaffold has passed all seismic qualification tests of Class 1E equipment and is in full compliance with the American National Standards Institute (ANSI) and the Institute of Electrical and Electronic Engineers (IEEE) standard 344-1987.

Table of Contents

Notes

Component Identification

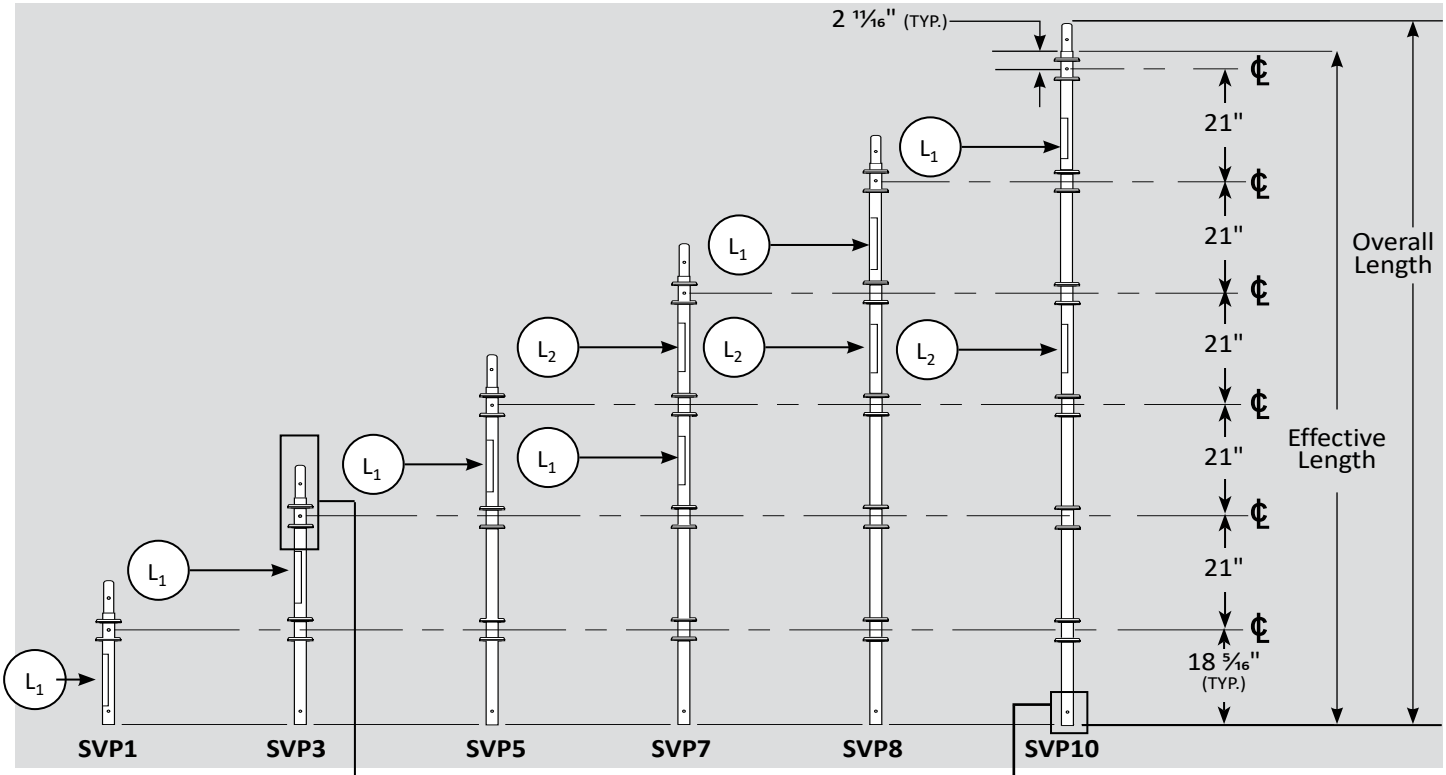
Section 1

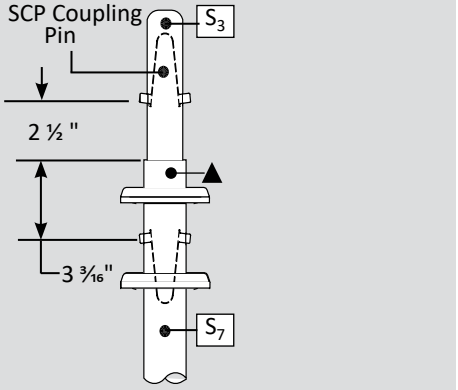
This section contains BrandSafway Systems™ Scaffold component illustrations, dimensions and weights to be used for visual part recognition and dimensional identification. The noted weights may be used for shipping weight and leg load calculations.

Component Identification

Vertical Posts

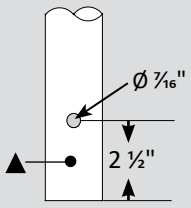
Part No.	Effective Length ft-in	Overall Length ft-in	Weight lb	Label	Material
SVP10	10'-6"	11'-0"	35.1	L_1 , L_2	S_3 , S_7
SVP8	8'-9"	9'-3"	29.7	L_1 , L_2	S_3 , S_7
SVP7	7'-0"	7'-6"	24.1	L_1 , L_2	S_3 , S_7
SVP5	5'-3"	5'-9"	18.6	L_1	S_3 , S_7
SVP3	3'-6"	4'-0"	13.0	L_1	S_3 , S_7
SVP1	1'-9"	2'-3"	7.6	L_1	S_3 , S_7





Coupling pin (Detail View)

Typical



Vertical Post (Detail View)

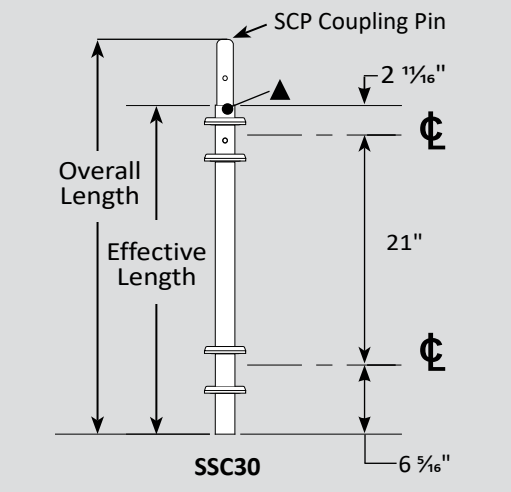
Typical

Component Identification

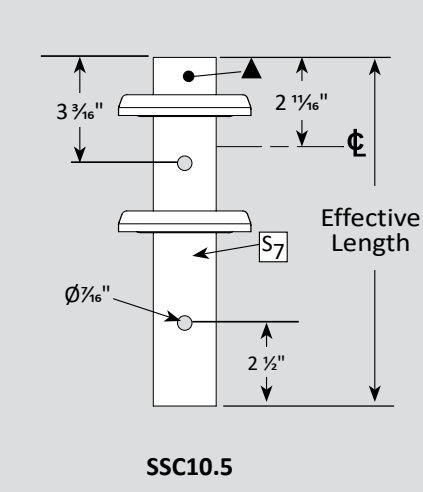
Starter Collars

Part No.	Effective Length ft-in	Overall Length ft-in	Weight lb	Material
SSC30	2'-6"	3'-0"	10.7	S_3 , S_7
* SSC10.5	10 ½"	—	3.4	S_7

*** SSC10.5 does not come with a coupling pin. A special coupling pin is available when an SVP_ is connected above and below the SSC10.5**



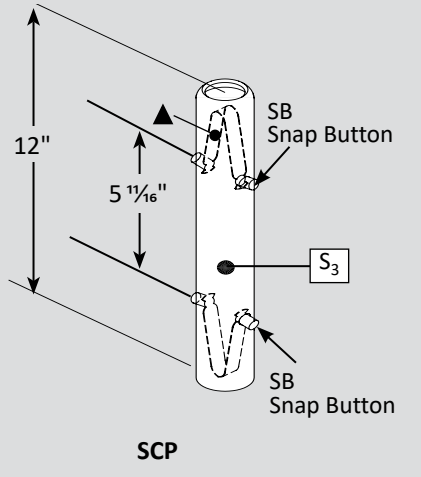
SSC30



SSC10.5

Systems™ Coupling Pin

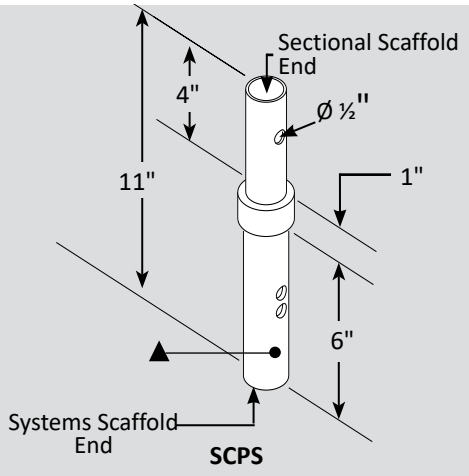
Part No.	Weight lb	Material
SCP	2.1	S_3



SCP

Transition Coupling Pin

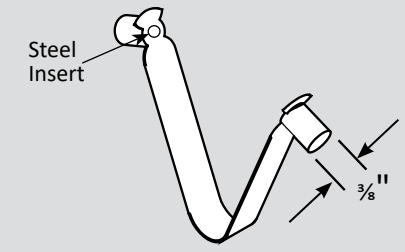
Part No.	Weight lb
SCPS	2.3



SCPS

Snap Button

Part No.	Weight lb
SB	0.1



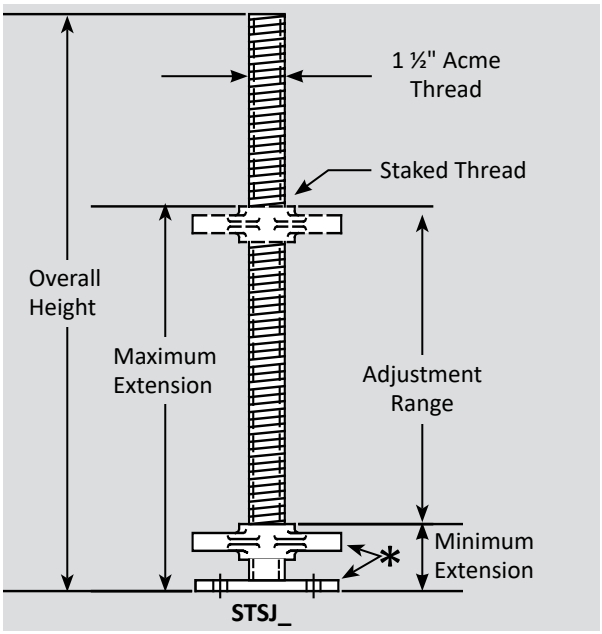
SB

Component Identification

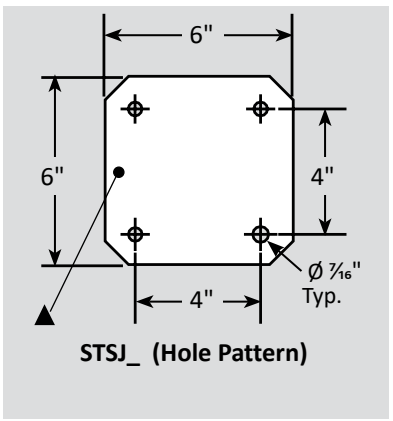
Tubular Screw Jack

Part No.	Maximum Extension	Minimum Extension	Adjustment Range	Overall Height	Weight
	in	in	in	in	lb
STSJ1	14"	2"	12"	21"	8.3
STSJ2	8"	2"	6"	12"	6.2

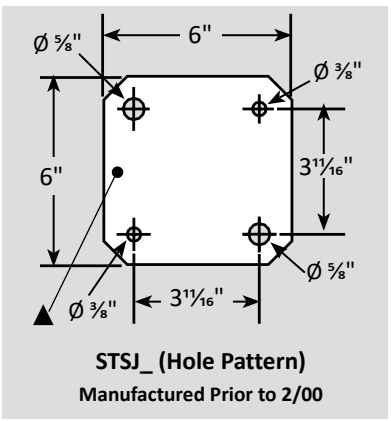
Not for use with casters.



STSJ_



STSJ_ (Hole Pattern)



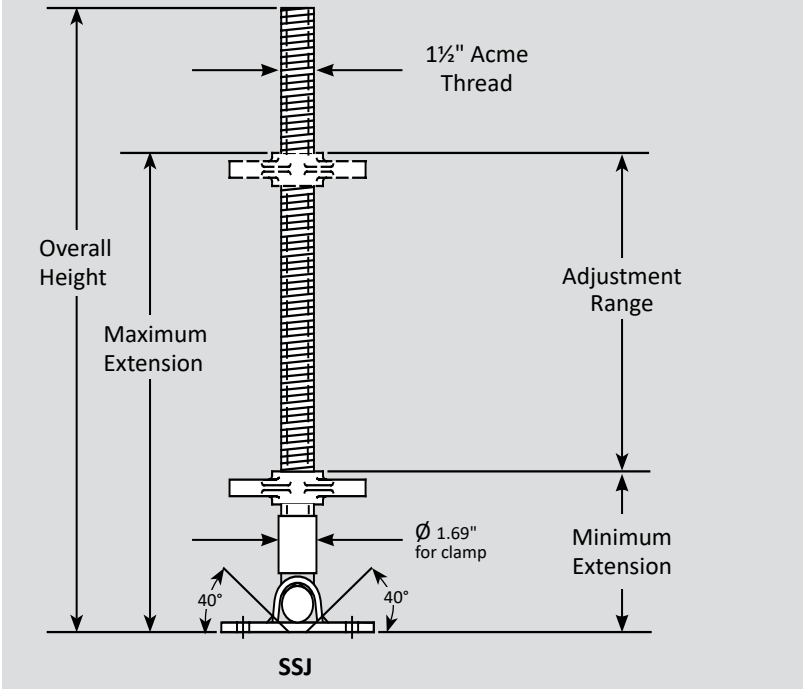
STSJ_ (Hole Pattern)
Manufactured Prior to 2/00

* The STSJ1 and STSJ2 have "Safway" marked into the base plate or jack handle.

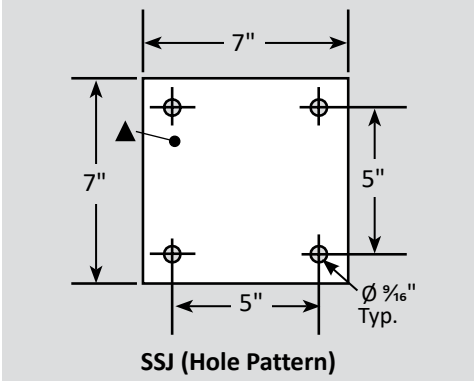
Tubular Swivel Scew Jack

Part No.	Maximum Extension	Minimum Extension	Adjustment Range	Overall Height	Weight
	in	in	in	in	lb
SSJ	18 13⁄16"	6 5⁄16"	12½"	24½"	14.9

Not for use with casters.



SSJ



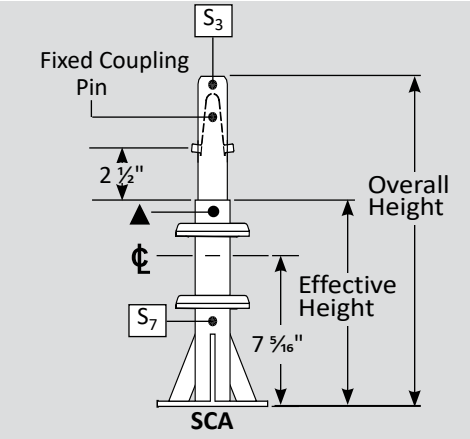
SSJ (Hole Pattern)

Component Identification

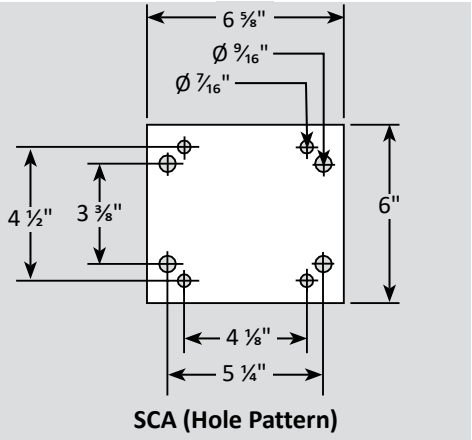
Caster Adapter

Part No.	Effective Height in	Overall Height ft-in	Weight lb	Material
SCA	10"	1'-4"	9.6	S_3, S_7

For use with 8" and 12" diameter BrandSafway Systems™ casters only.



SCA

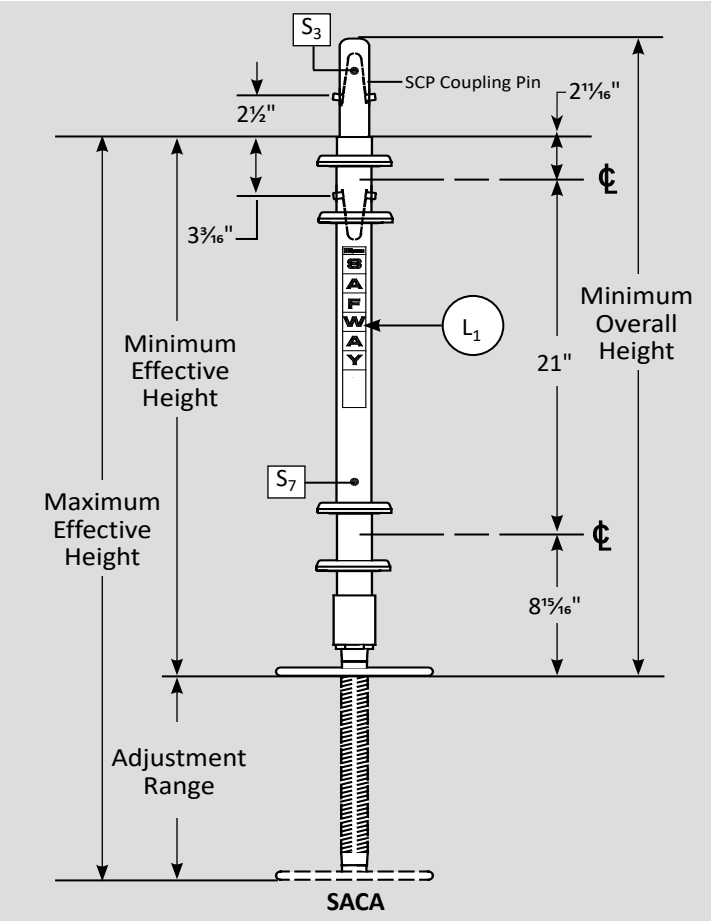


SCA (Hole Pattern)

Adjustable Caster Adapter

Part No.	Max. Effective Height ft-in	Min. Effective Height ft-in	Adjustment Range in	Minimum Overall Height ft-in	Weight lb	Label	Material
SACA	3'-9"	2'-9¼"	11¾"	3'-2⅝"	27.2	L_1	S_3, S_7

For use with 8" diameter BrandSafway Systems™ casters only. (Not for use with 12" diameter casters.)



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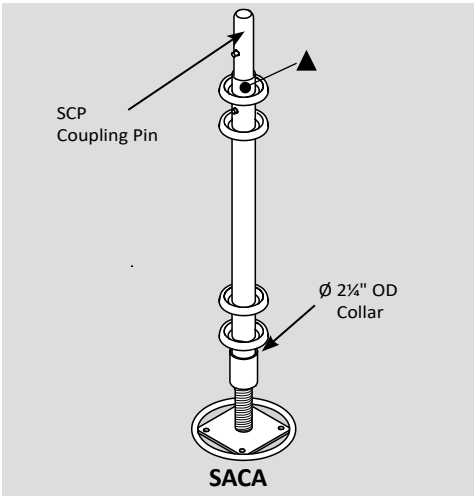

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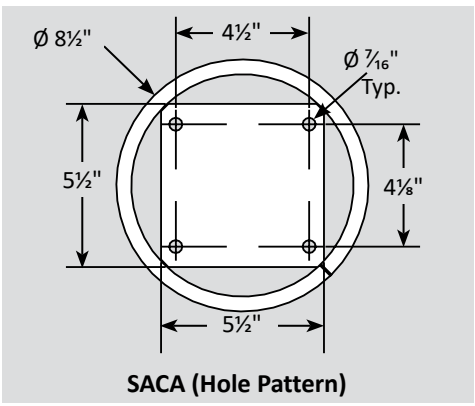


SACA (Hole Pattern)

Component Identification

Casters

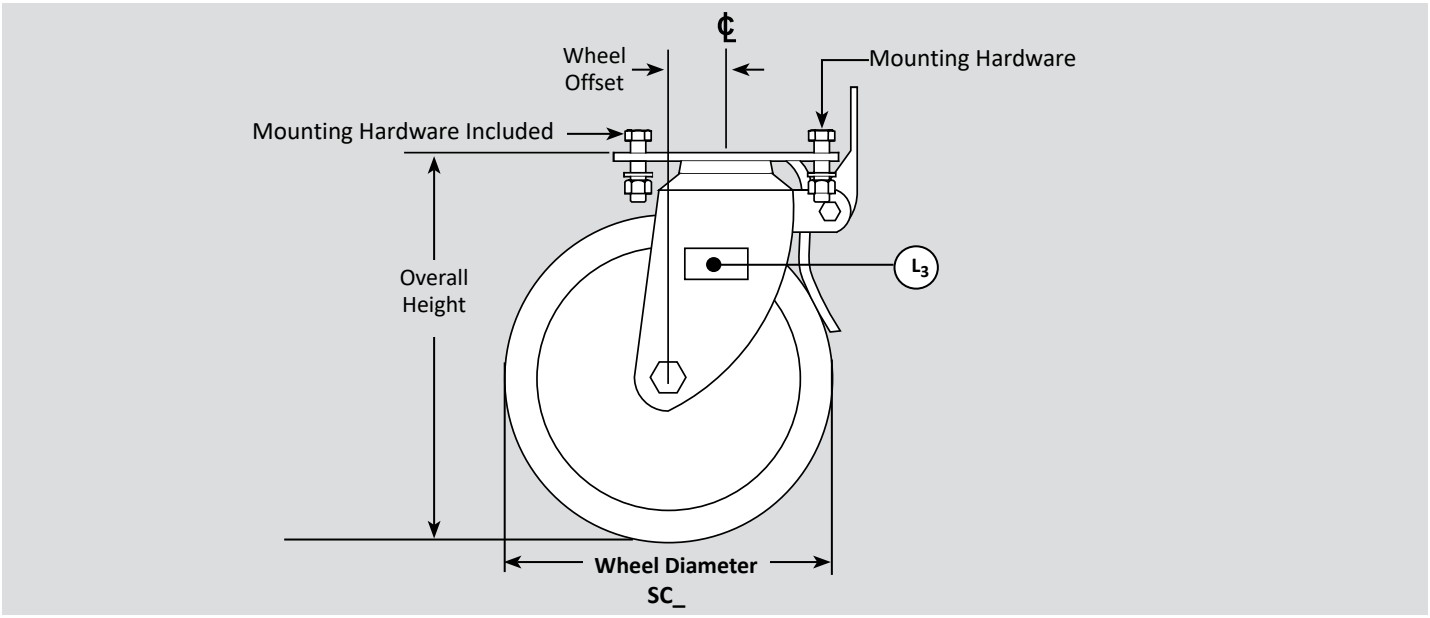
Part No.	Wheel Diameter in	Overall Height in	Wheel Offset in	Wheel Thickness in	Tread Material	Weight lb	Label
SCS8	8"	9½"	2"	2"	Steel	15.4	L_3
SCU8	8"	9½"	2"	2"	Polyurethane	10.8	L_3
SCS12	12"	14½"	2 ⅞"	2⅝"	Cast Iron	36.7	L_3
SCU12	12"	14½"	2 ⅞"	2⅞"	Polyurethane	25.2	L_3
*SCU12HD	12"	15½"	2 ⅞"	3"	Polyurethane	26.5	L_3

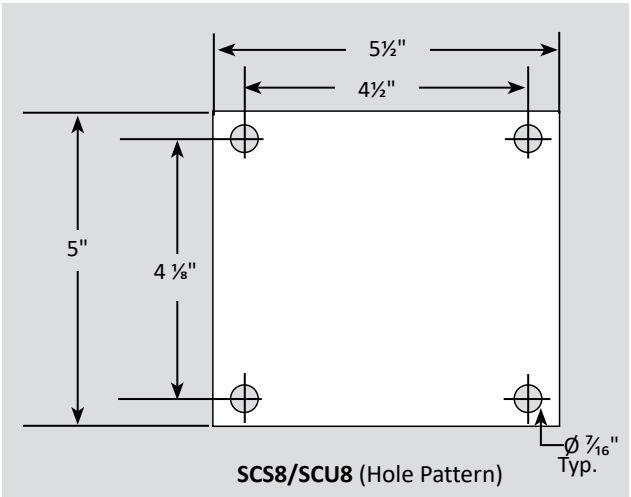
*** Discontinued**

Mounting Hardware

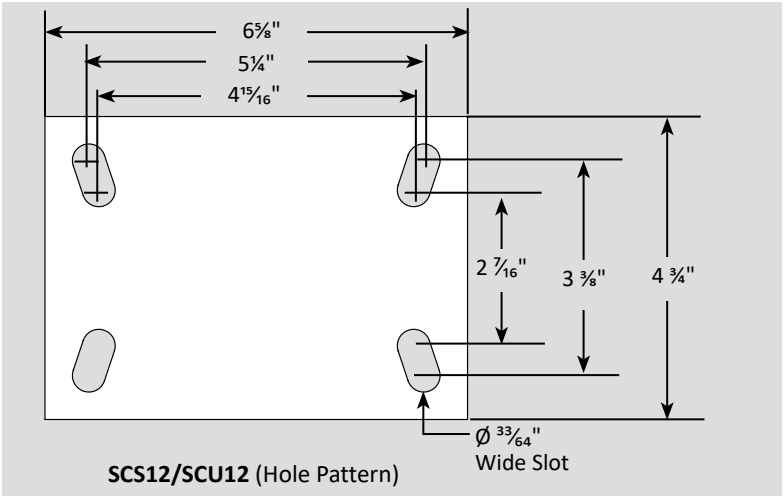
Part No.	Bolt	Nut	Lock Washer
SCS8	5143A0601	5163A0001	5182A0001
SCU8	5143A0601	5163A0001	5182A0001
SCS12	5143A0801	5163A0002	5182A0002
SCU12	5143A0801	5163A0002	5182A0002
SCU12HD	5143A0801	5163A0002	5182A0002

Replacement components: 4 bolts, nuts and lock washers required per caster





SCS8/SCU8 (Hole Pattern)



SCS12/SCU12 (Hole Pattern)

Component Identification

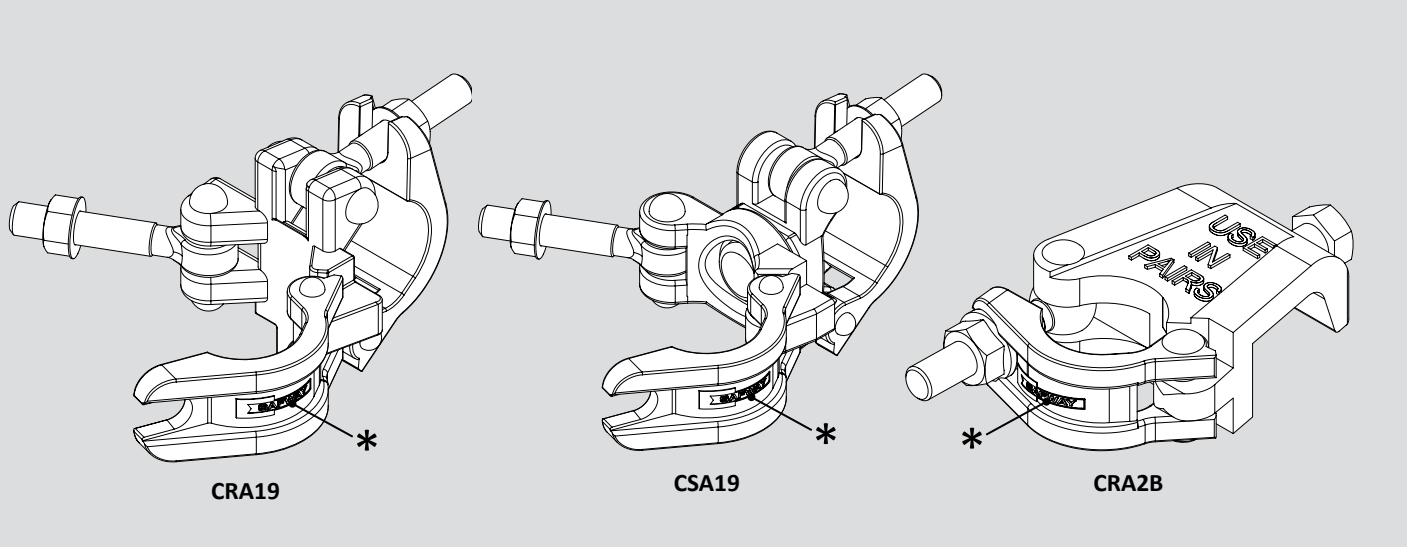
Bolt Clamps - Dual Purpose

Part No.	Description	Weight lb
CRA19	Right Angle Clamp	3.0
CSA19	Swivel Clamp	3.5

Dual Purpose Clamps fit 1.90" and 1.69" O.D. tubes.

Beam Clamp

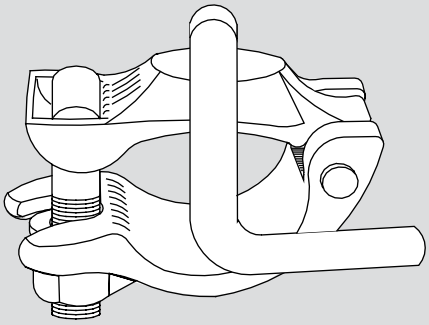
Part No.	Description (Use in pairs)	Weight lb
CRA2B	Beam Clamp, 1.90" Only	3.9



CRA19 **CSA19** **CRA2B**

Tie Clamp

Part No.	Weight lb
SLTC	3.1



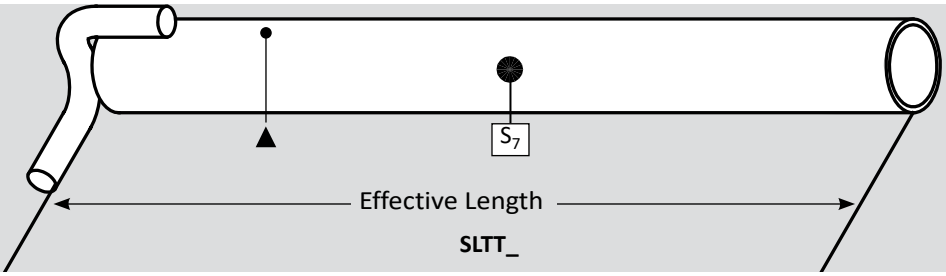
SLTC

* The CRA19, CSA19 and CRA2B have "Safway" marked on the clamp caps.

Component Identification

SL Tie Tubes

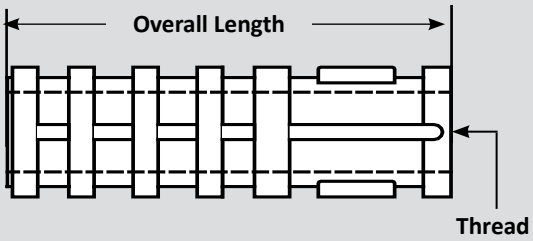
Part No.	Description	Effective Length ft-in	Weight lb	Material
SLTT	0.5m Tie Tube	1'-8¼"	4.6	S_7
SLTT1	1.1m Tie Tube	3'-7⅞"	9.7	S_7



SLTT_

Wall Inserts

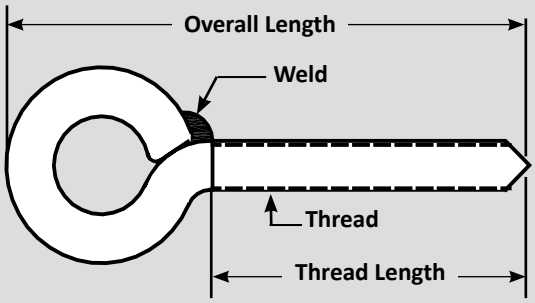
Part No.	Powers Part No.	Overall Length in	Thread	Weight lb
SLTLS1	1151	1¾"	⅜"-7 Lag	0.06
SLTLS2	6306	1⁹⁄₁₆"	⅜"-16 Machine	0.06



SLTLS_

Eye Bolts

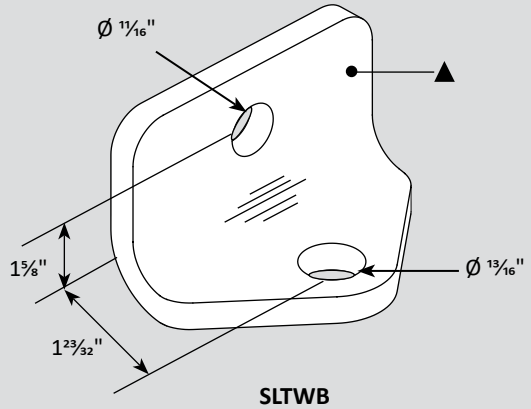
Part No.	Overall Length in	Thread Length in	Thread	Weight lb
SLTTB1	4⅜"	2½"	⅜"-7 Lag	0.13
SLTTB2	2½"	⅞"	⅜"-16 Machine	0.12



SLTTB_

Wall Tie Bracket

Part No.	Weight lb
SLTWB	1.56

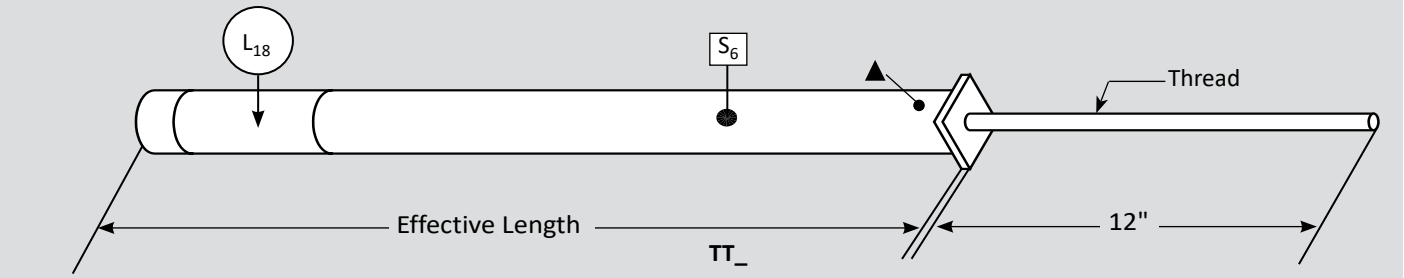


SLTWB

Component Identification

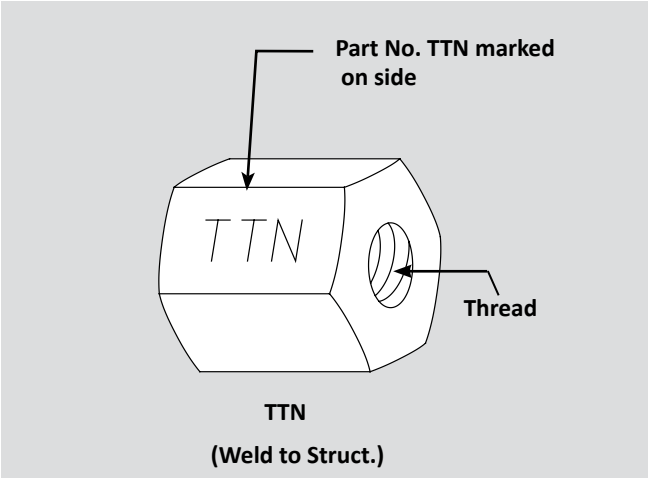
Tie Tubes

Part No.	Description	Effective Length ft-in	Thread	Weight lb	Label	Material
TT2	2' Tie Tube	2'-0"	½"-6 Coil	4.9	L_{18}	S_6
TT3	3' Tie Tube	3'-0"	½"-6 Coil	6.8	L_{18}	S_6



Tie Tube Nut

Part No.	Description	Length in	Thread	Weight lb
TTN	Tie Tube Nut	1 3/16"	½"-6 Coil	0.31



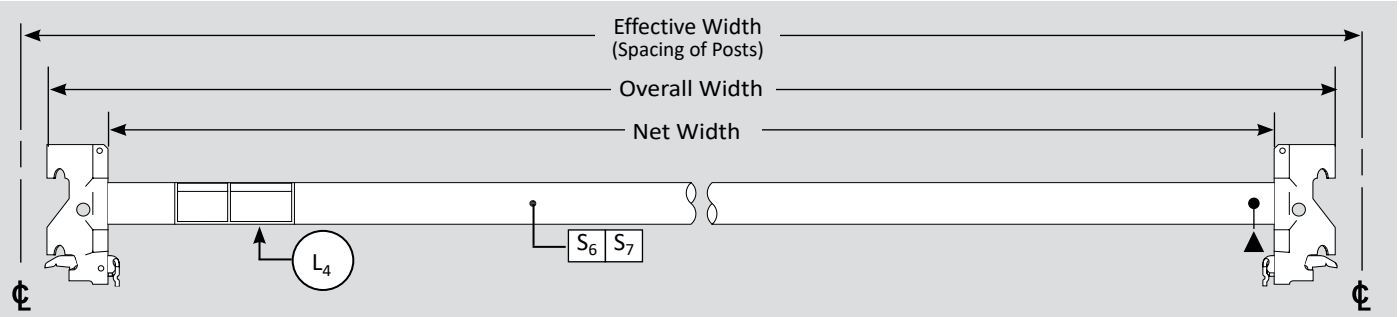
Component Identification

Bearers/Runners

Part No.	Effective Width ft-in	Overall Width ft-in	Net Width ft-in	Weight lb	Label	Material
SBR2	2'-0"	1'-9¾"	1'-4⅜"	6.7	L_4	S_6
SBR33	2'-9"	2'-6¾"	2'-1⅜"	8.2	L_4	S_6
SBR3	3'-0"	2'-9¾"	2'-4⅜"	8.7	L_4	S_6
SBR42	3'-6"	3'-3¾"	2'-10⅜"	11.1	L_4	S_7
SBR45	3'-9"	3'-6¾"	3'-1⅜"	10.1	L_4	S_6
SBR4	4'-0"	3'-9¾"	3'-4⅜"	12.2	L_4	S_7
SBR54	4'-6"	4'-3¾"	3'-10⅜"	13.5	L_4	S_7
SBR5	5'-0"	4'-9¾"	4'- 4⅜"	14.7	L_4	S_7

Runners

Part No.	Effective Length ft-in	Overall Length ft-in	Net Length ft-in	Weight lb	Label	Material
SHR6	6'-0"	5'-9¾"	5'-4⅜"	14.6	L_4	S_6
SHR7	7'-0"	6'-9¾"	6'-4⅜"	16.5	L_4	S_6
SHR8	8'-0"	7'-9¾"	7'-4⅜"	18.4	L_4	S_6
SHR9	9'-0"	8'-9¾"	8'-4⅜"	20.4	L_4	S_6
SHR10	10'-0"	9'-9¾"	9'-4⅜"	22.3	L_4	S_6

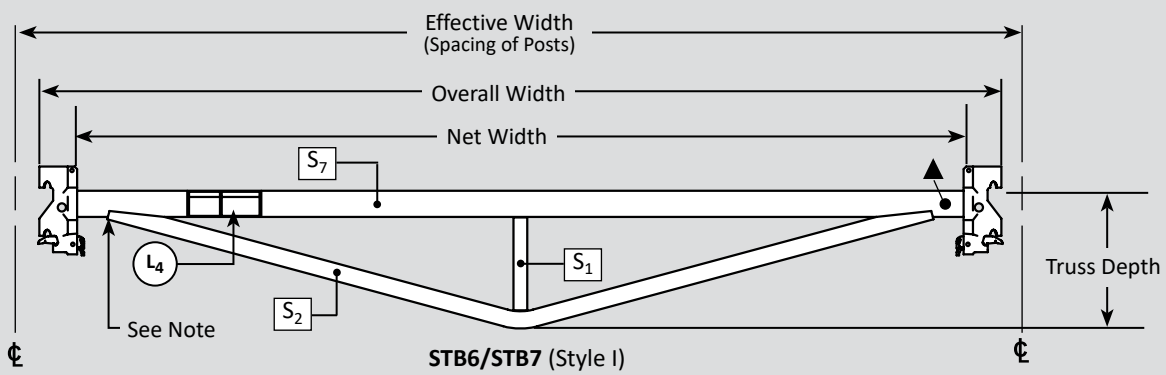


SBR_ / SHR_

Truss Bearers (Style I)

Part No.	Effective Width ft-in	Overall Width ft-in	Net Width ft-in	Truss Depth in	Weight lb	Label	Material
STB6	6'-0"	5'-9¾"	5'-4⅜"	10"	23.4	L_4	S_1, S_2, S_7
STB7	7'-0"	6'-9¾"	6'-4⅜"	10"	26.9	L_4	S_1, S_2, S_7

Note: End of tube may or may not be open, sides are welded.



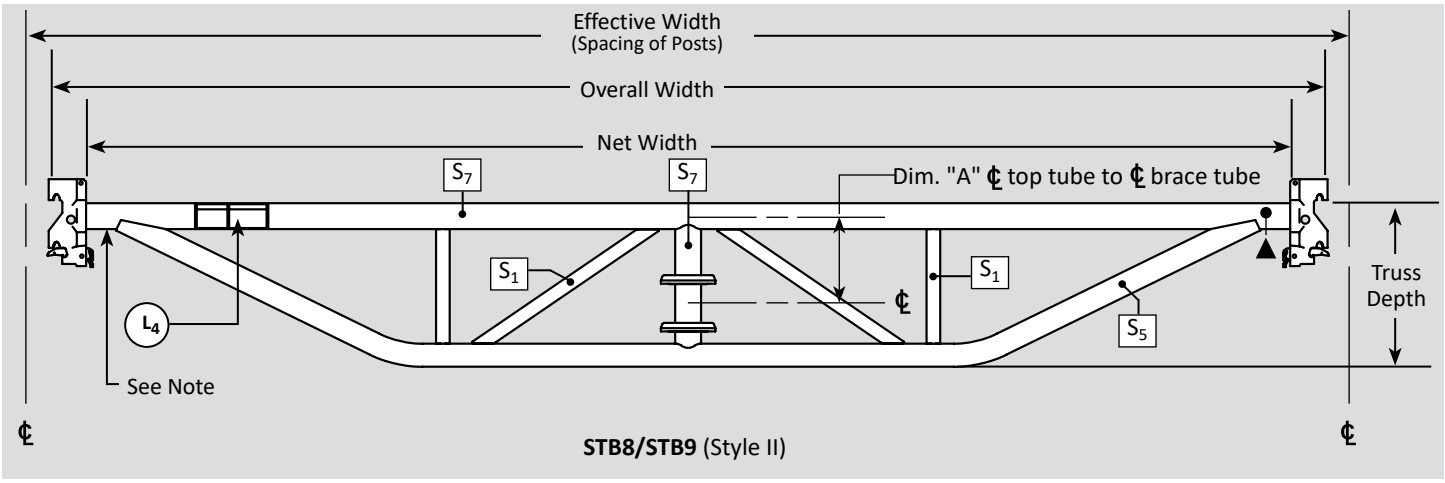
STB6/STB7 (Style I)

Component Identification

Truss Bearers (Style II)

Part No.	Effective Width ft-in	Overall Width ft-in	Net Width ft-in	Truss Depth in	Dim "A" in	Weight lb	Label	Material
STB8	8'-0"	7'-9¾"	7'-4⅜"	12"	5¹⁵⁄₁₆"	40.6	L_4	S_1, S_5, S_7
STB9	9'-0"	8'-9¾"	8'-4⅜"	14"	5¹⁵⁄₁₆"	45.7	L_4	S_1, S_5, S_7

Note: End of tube may or may not be open, sides are welded.

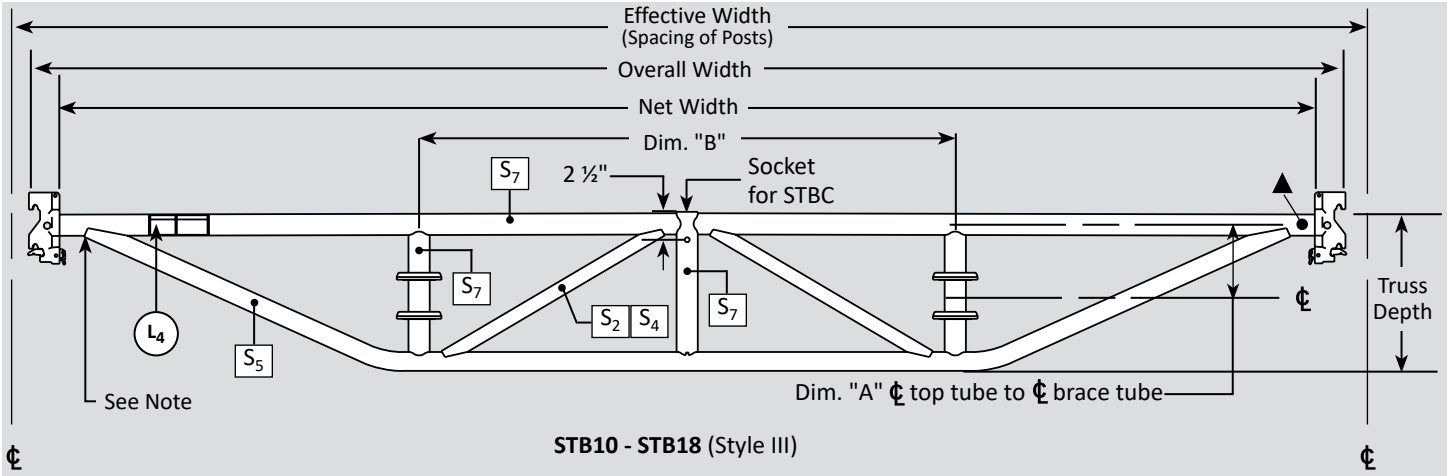


STB8/STB9 (Style II)

Truss Bearers (Style III)

Part No.	Effective Width ft-in	Overall Width ft-in	Net Width ft-in	Truss Depth in	Dim "A" in	Dim "B" ft-in	Weight lb	Label	Material
STB10	10'-0"	9'-9¾"	9'-4⅜"	14"	5⅞"	4'-0"	56.5	L_4	S_2, S_5, S_7
STB12	12'-0"	11'-9¾"	11'-4⅜"	16"	7⅞"	6'-0"	68.4	L_4	S_2, S_5, S_7
STB14	14'-0"	13'-9¾"	13'-4⅜"	16"	7⅞"	6'-0"	76.5	L_4	S_2, S_5, S_7
STB16	16'-0"	15'-9¾"	15'-4⅜"	18"	7⅞"	8'-6"	93.1	L_4	S_4, S_5, S_7
STB18	18'-0"	17'-9¾"	17'-4⅜"	18"	7⅞"	8'-6"	101.2	L_4	S_4, S_5, S_7

Note: End of tube may or may not be open, sides are welded.



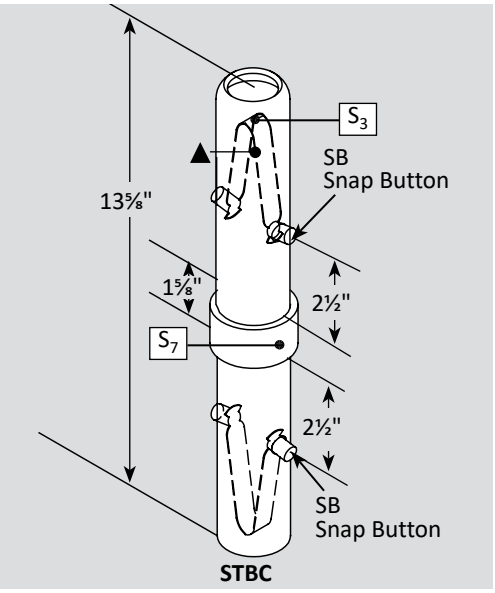
STB10 - STB18 (Style III)

Component Identification

Truss Bearer Coupler

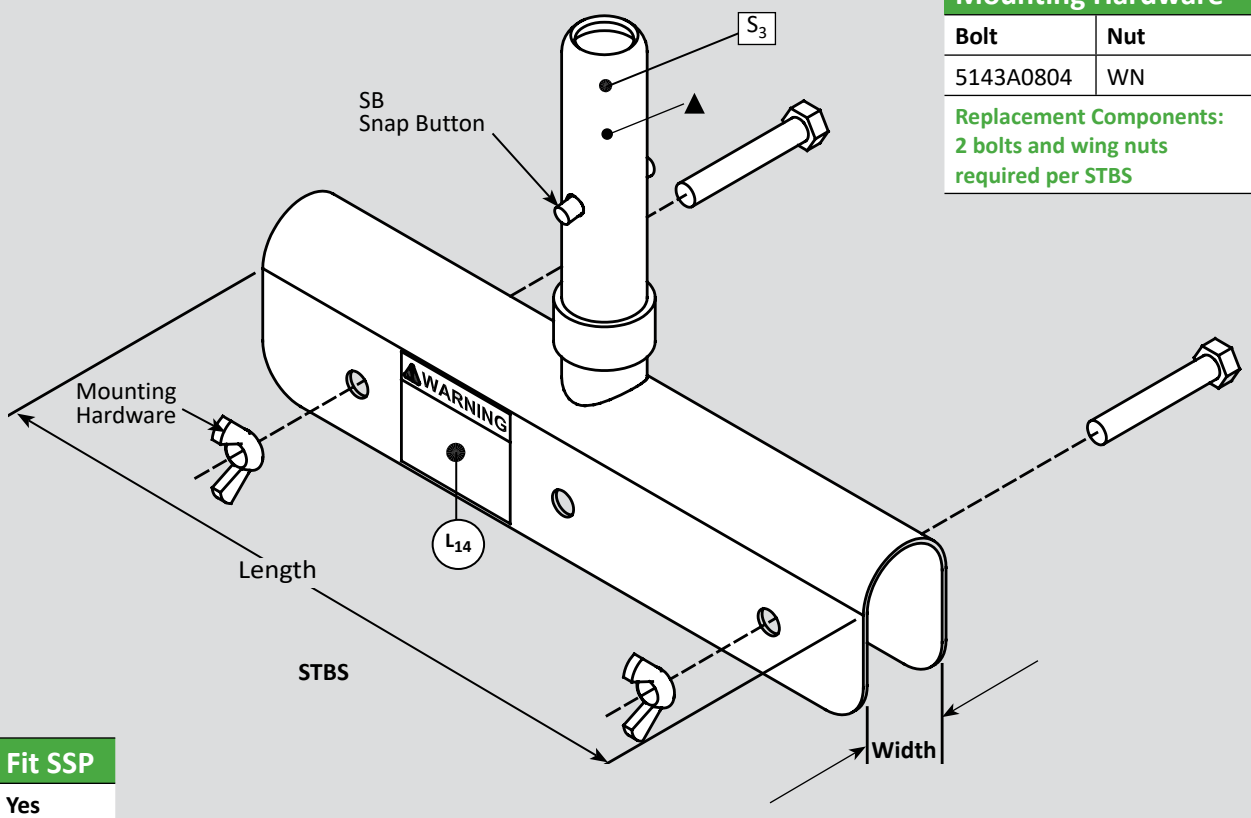
Part No.	Weight lb	Material
STBC	2.6	S_3, S_7

Note: For use with Style III Truss Bearers only.



Truss Bearer Saddle

Part No.	Length ft-in	Weight lb	Label	Material
STBS	1'-2"	6.3	L_{14}	S_3



Mounting Hardware

Bolt	Nut
5143A0804	WN

Replacement Components: 2 bolts and wing nuts required per STBS

Width	Fit SSP
2 3⁄16"	Yes
2 11⁄32"	No

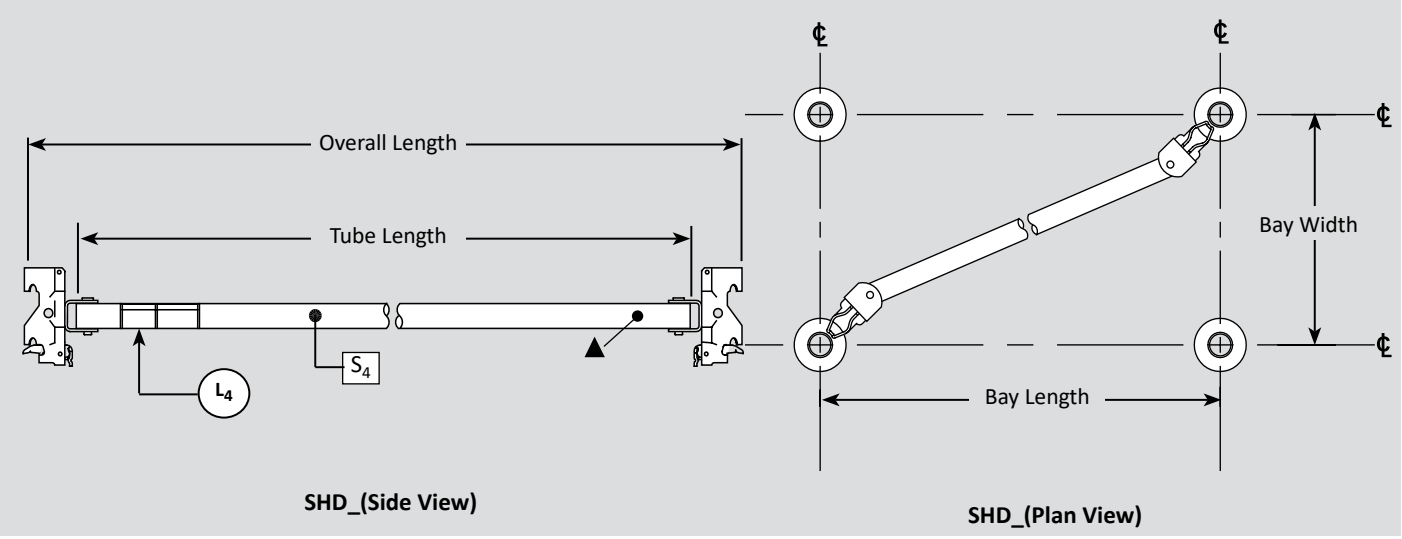
STBS manufactured prior to 4/08 have a width of 2 11⁄32", which prevents a SSP plank from bearing on top. STBSs manufactured after 4/08 have a width of 2 3⁄16", allowing the SSP plank to bear on top of it.

Component Identification

Horizontal Diagonals

Part No.	Bay Width x Bay Length	Tube Length in	Overall Length in	Weight lb	Label	Material
SHD33	3' x 3'	41 27/32"	48 29/32"	11.3	L_4	S_4
SHD37	3' x 7'	83 3/16"	90 1/4"	16.9	L_4	S_4
SHD38	3' x 8'	94 17/32"	101 19/32"	18.5	L_4	S_4
SHD39	3' x 9'	106"	113 1/16"	20.0	L_4	S_4
SHD310	3' x 10'	117 19/32"	124 21/32"	21.6	L_4	S_4
SHD425	42" x 5'	64 3/8"	71 1/16"	14.4	L_4	S_4
SHD427	42" x 7'	85 15/32"	92 17/32"	17.2	L_4	S_4
SHD428	42" x 8'	96 17/32"	103 19/32"	18.7	L_4	S_4
SHD457	45" x 7'	86 3/4"	93 13/16"	17.4	L_4	S_4
SHD459	45" x 9'	108 13/16"	115 7/8"	20.4	L_4	S_4
SHD4510	45" x 10'	120 1/8"	127 3/16"	21.9	L_4	S_4
SHD45	4' x 5'	67 27/32"	74 29/32"	14.9	L_4	S_4
SHD47	4' x 7'	88 3/32"	95 5/32"	17.6	L_4	S_4
SHD547	54" x 7'	91 1/16"	98 1/8"	18.0	L_4	S_4
SHD5410	54" x 10'	123 9/32"	130 11/32"	22.3	L_4	S_4
SHD55	5' x 5'	75 25/32"	82 27/32"	15.9	L_4	S_4
SHD57	5' x 7'	94 5/16"	101 3/8"	18.4	L_4	S_4
SHD58	5' x 8'	104 7/16"	111 1/2"	19.8	L_4	S_4
SHD59	5' x 9'	114 15/16"	122"	21.2	L_4	S_4
SHD510	5' x 10'	125 1/16"	132 3/4"	22.7	L_4	S_4
SHD77	7' x 7'	109 23/32"	116 25/32"	20.5	L_4	S_4
SHD79	7' x 9'	127 27/32"	134 29/32"	23.0	L_4	S_4
SHD710	7' x 10'	137 19/32"	144 21/32"	24.3	L_4	S_4
SHD99	9' x 9'	143 11/16"	150 3/4"	25.1	L_4	S_4
SHD910	9' x 10'	152 13/32"	159 15/32"	26.3	L_4	S_4
SHD1010	10' x 10'	160 5/8"	167 11/16"	27.4	L_4	S_4

Other horizontal diagonals are available on request.

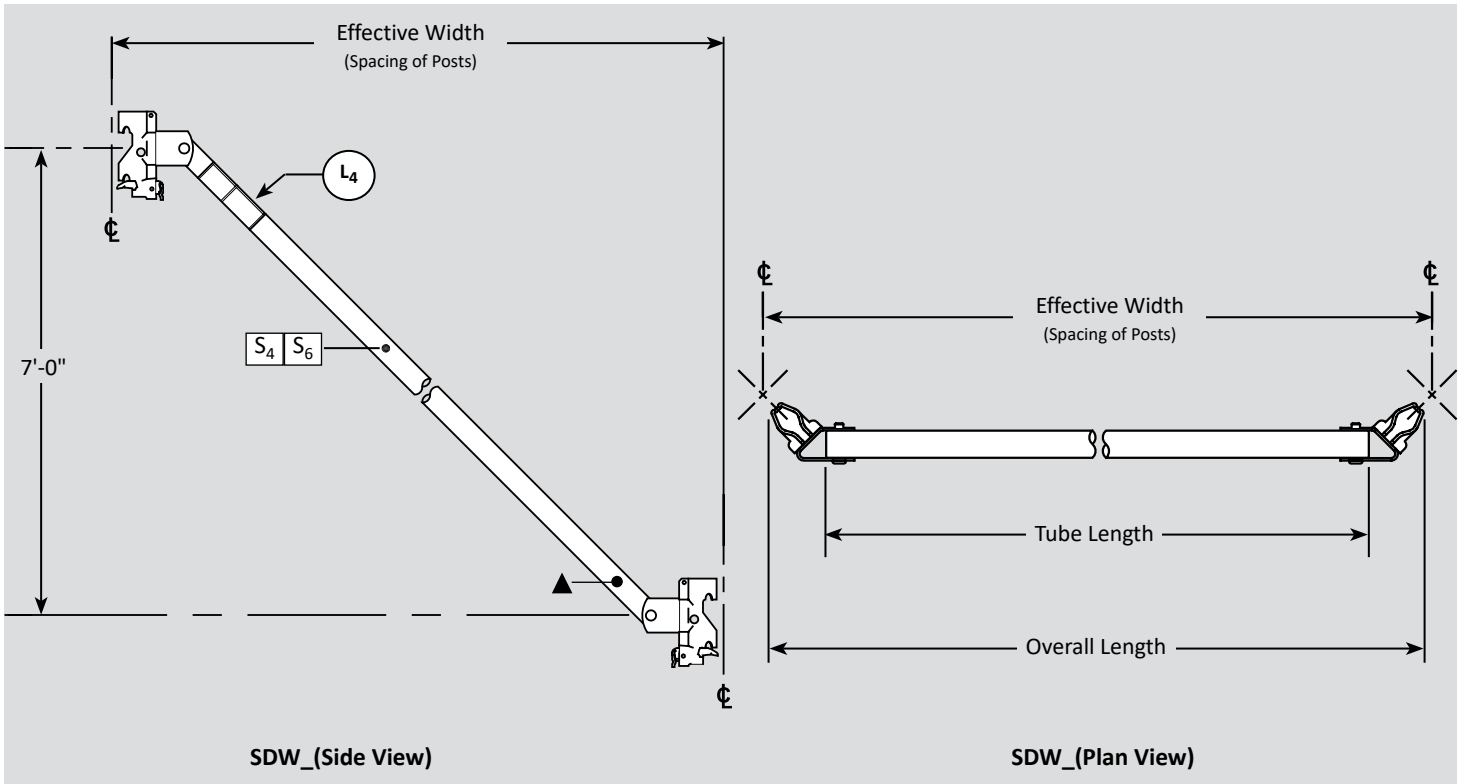


SHD_(Side View) **SHD_(Plan View)**

Component Identification

Vertical Diagonals

Part No.	Effective Width ft-in	Tube Length ft-in	Overall Length ft-in	Weight lb	Label	Material
SDW3	3'-0"	7'-5 11/16"	8'-0 5/16"	18.2	L_4	S_4
SDW42	3'-6"	7'-7 23/32"	8'-2 11/32"	18.5	L_4	S_4
SDW45	3'-9"	7'-8 27/32"	8'-3 15/32"	18.6	L_4	S_4
SDW4	4'-0"	7'-10 1/16"	8'-4 1/16"	18.8	L_4	S_4
SDW54	4'-6"	8'-0 3/4"	8'- 7 3/8"	19.2	L_4	S_4
SDW5	5'-0"	8'-3 23/32"	8'-10 11/32"	19.6	L_4	S_4
SDW6	6'-0"	8'-10 7/16"	9'-5 1/16"	20.5	L_4	S_4
SDW7	7'-0"	9'-6 1/32"	10'-0 21/32"	21.5	L_4	S_4
SDW8	8'-0"	10'-2 11/32"	10'-8 31/32"	26.1	L_4	S_6
SDW9	9'-0"	10'-11 1/4"	11'-5 7/8"	27.5	L_4	S_6
SDW10	10'-0"	11'-8 19/32"	12'-3 3/32"	29.1	L_4	S_6

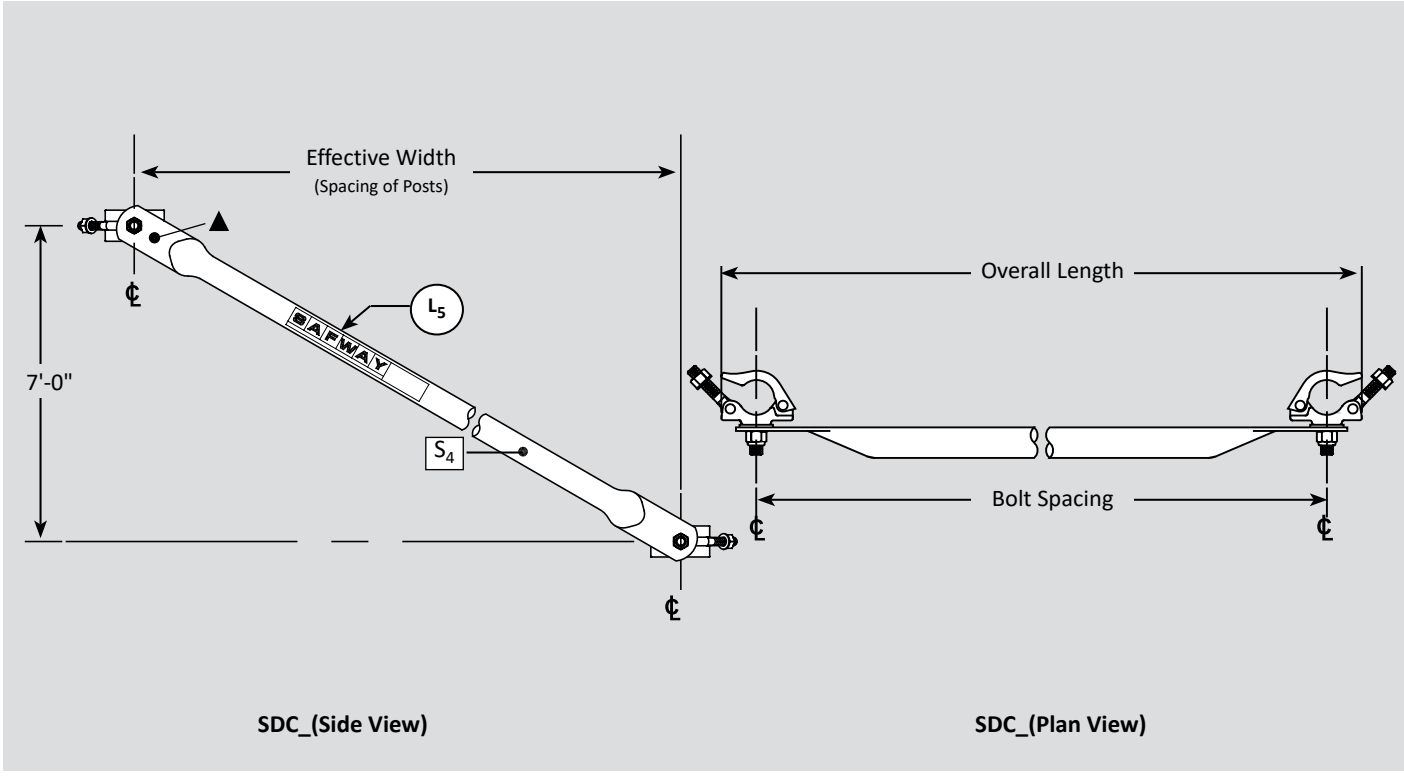


SDW_(Side View) **SDW_(Plan View)**

Component Identification

Vertical Diagonals with Clamps

Part No.	Effective Width	Bolt Spacing	Overall Length	Weight	Label	Material
	ft-in	ft-in	ft-in	lb		
SDC3	3'-0"	7'-7⅜"	7'-11⅜"	16.8	L_5	S_4
SDC42	3'-6"	7'-9²⁹⁄₃₂"	8'-1¹⁵⁄₁₆"	17.2	L_5	S_4
SDC4	4'-0"	8'-0¾"	8'-4¾"	17.5	L_5	S_4
SDC54	4'-6"	8'-3⅞"	8'-7⅞"	18.0	L_5	S_4
SDC5	5'-0"	8'-7²⁹⁄₃₂"	8'-11¼"	18.5	L_5	S_4
SDC6	6'-0"	9'-2⅝"	9'-6⅝"	19.4	L_5	S_4
SDC7	7'-0"	9'-10²⁵⁄₃₂"	10'-2¹³⁄₁₆"	20.6	L_5	S_4
SDC8	8'-0"	10'-7⁹⁄₁₆"	10'-11⁹⁄₁₆"	21.7	L_5	S_4
SDC9	9'-0"	11'-4¹³⁄₁₆"	11'-8¹³⁄₁₆"	23.0	L_5	S_4
SDC10	10'-0"	12'-2¹⁵⁄₃₂"	12'-6½"	24.3	L_5	S_4

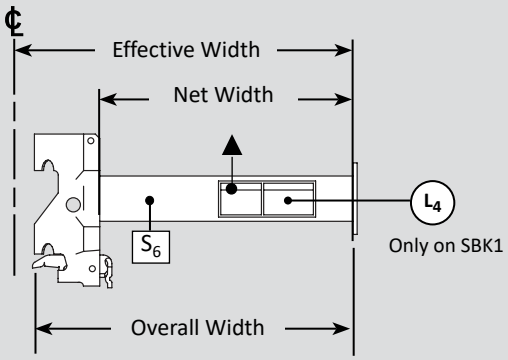


SDC_(Side View) **SDC_(Plan View)**

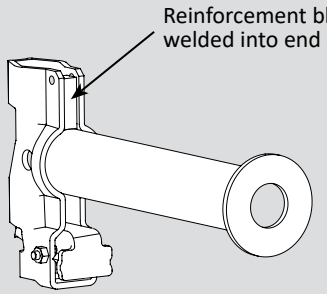
Component Identification

Plank Brackets

Part No.	Effective Width in	Net Width in	Overall Width in	Weight lb	Label	Material
SBK06	5½"	1⅜"	4½"	2.6	–	S_6
SBK1	14½"	10⅝"	13½"	4.2	L_4	S_6



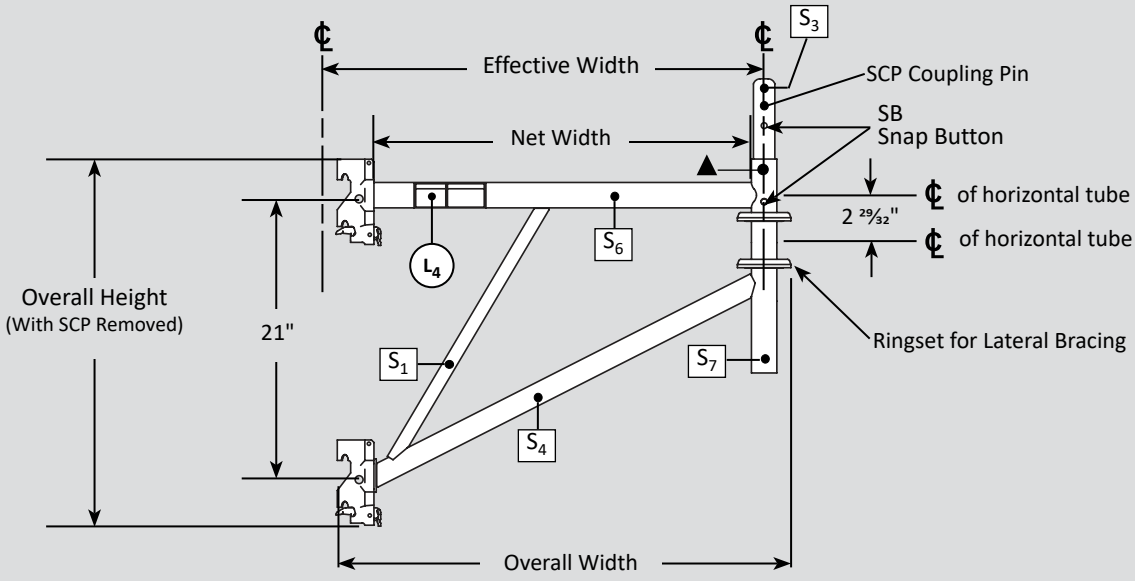
SBK06/SBK1



SBK1

Side Brackets

Part No.	Effective Width ft-in	Net Width ft-in	Overall Width ft-in	Overall Height ft-in	Weight lb	Label	Material
SBK2	2'-0"	1'-7¼"	2'-0¹⁵⁄₁₆"	2'-3½"	18.9	L_4	S_1, S_3, S_4, S_6, S_7
SBK33	2'-9"	2'-4¼"	2'-9¹⁵⁄₁₆"	2'-3½"	21.4	L_4	S_3, S_6, S_7
SBK3	3'-0"	2'-7¼"	3'-0¹⁵⁄₁₆"	2'-3½"	22.3	L_4	S_3, S_6, S_7

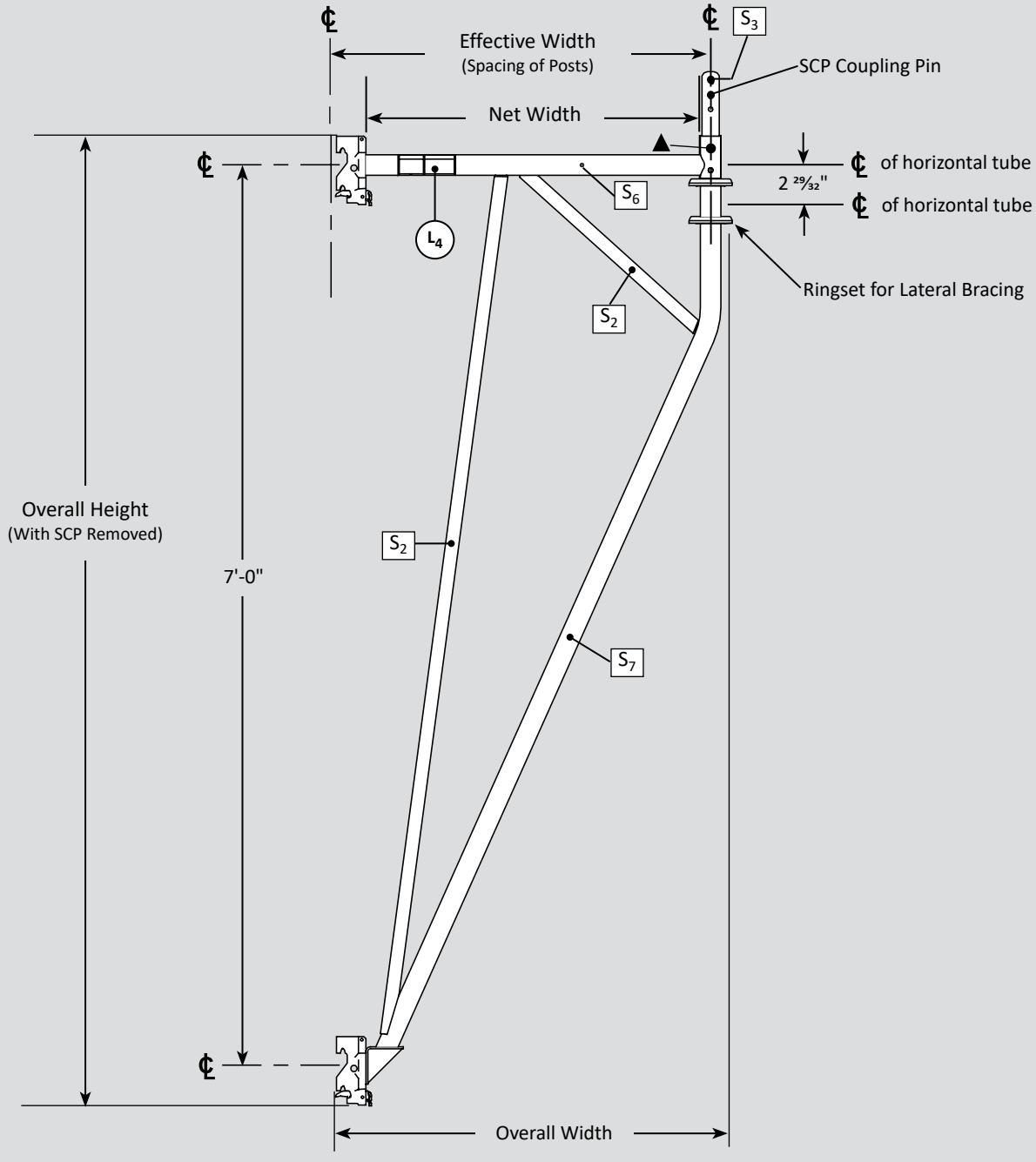


SBK2/SBK33/SBK3

Component Identification

Knee Out Brackets

Part No.	Effective Width ft-in	Net Width ft-in	Overall Width ft-in	Overall Height ft-in	Weight lb	Label	Material
SKO3	3'-0"	2'-7¼"	3'-0 15/16"	7'-6½"	42.1	L_4	S_2, S_3, S_6, S_7
SKO45	3'-9"	3'-4¼"	3'-9 15/16"	7'-6½"	45.3	L_4	S_2, S_3, S_6, S_7

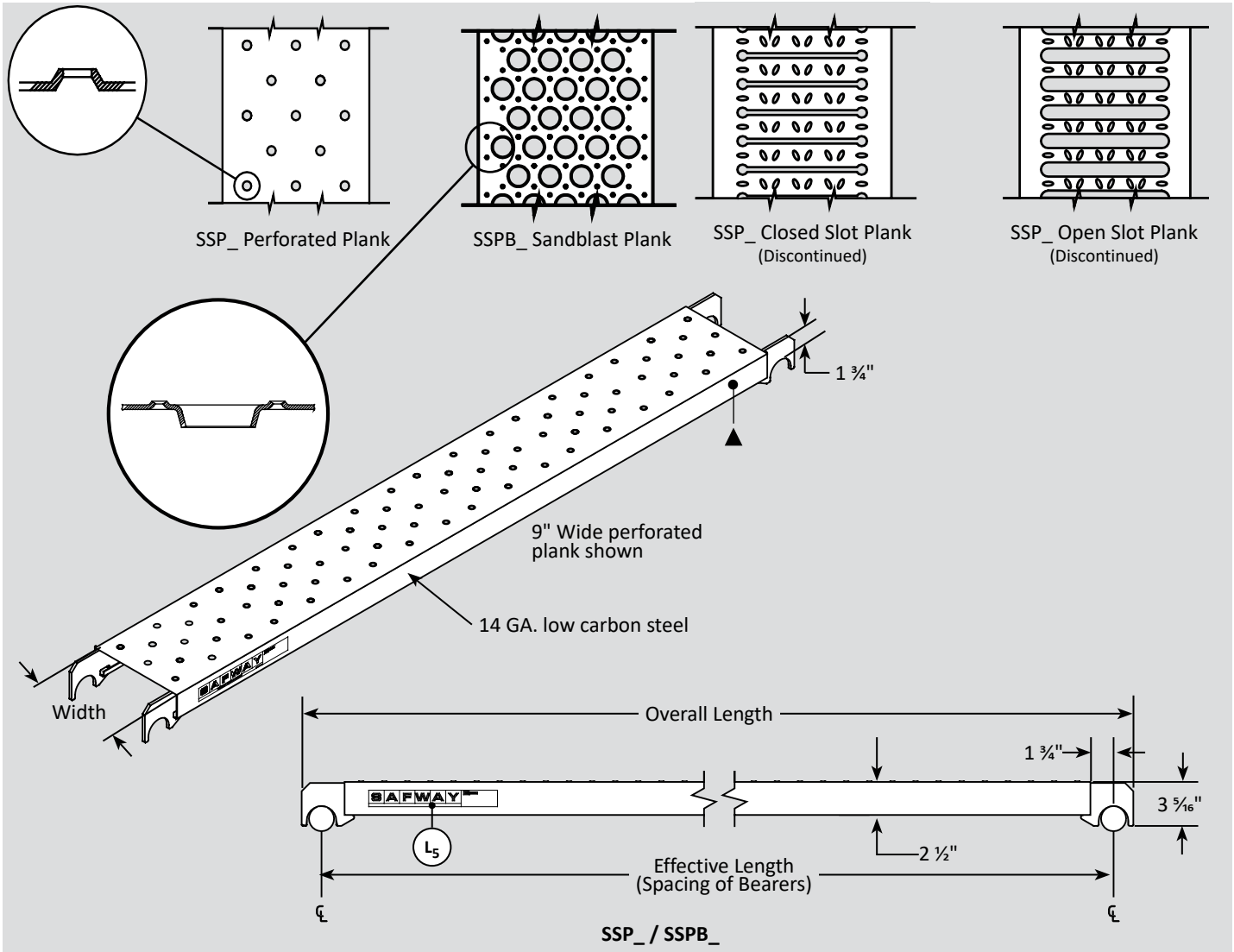


SKO3/SKO45

Component Identification

Steel Planks

Width = 6"		Width = 9"						
Part No.	Weight lb	Part No.	Weight lb	Part No.	Weight lb	Effective Length ft-in	Overall Length ft-in	Label
SSP62	9.9	SSP2	11.4	SSPB2	11.6	2'-0"	2'-3"	L_5
SSP633	12.7	SSP33	14.8	SSPB33	14.8	2'-9"	3'-0"	L_5
SSP63	13.6	SSP3	16.0	SSPB3	15.6	3'-0"	3'-3"	L_5
SSP642	15.4	SSP42	18.2	SSPB42	18.1	3'-6"	3'-9"	L_5
SSP645	16.4	SSP45	19.3	SSPB45	19.1	3'-9"	4'-0"	L_5
SSP64	17.3	SSP4	20.5	SSPB4	20.2	4'-0"	4'-3"	L_5
SSP654	19.1	SSP54	22.7	SSPB54	22.4	4'-6"	4'-9"	L_5
SSP65	21.0	SSP5	24.9	SSPB5	21.4	5'-0"	5'-3"	L_5
SSP66	24.6	SSP6	29.5	SSPB6	28.8	6'-0"	6'-3"	L_5
SSP67	28.3	SSP7	33.9	SSPB7	32.9	7'-0"	7'-3"	L_5
SSP68	32.0	SSP8	38.4	SSPB8	37.4	8'-0"	8'-3"	L_5
SSP69	35.6	SSP9	42.9	SSPB9	41.7	9'-0"	9'-3"	L_5
SSP610	39.3	SSP10	47.4	SSPB10	46.2	10'-0"	10'-3"	L_5

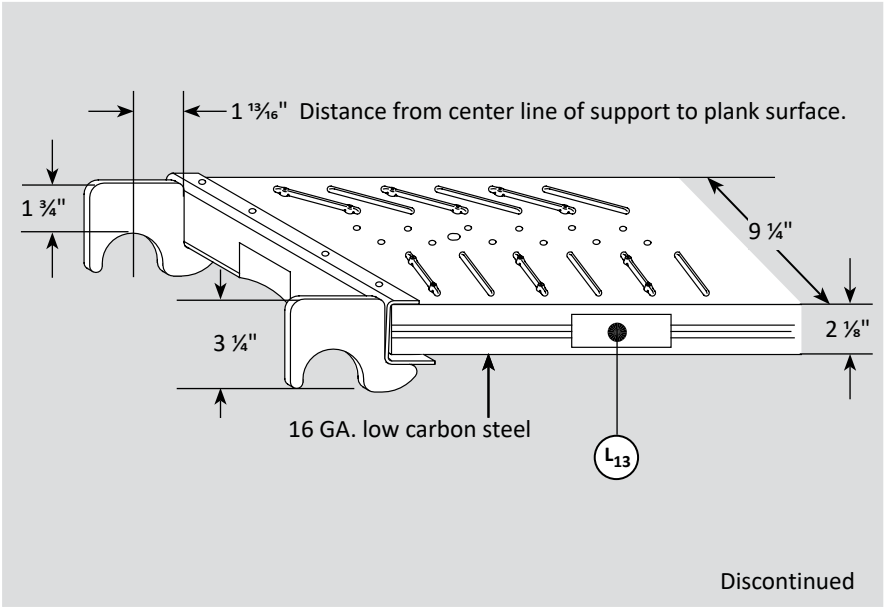


SSP_ / SSPB_

Component Identification

High Hook Duraplank®

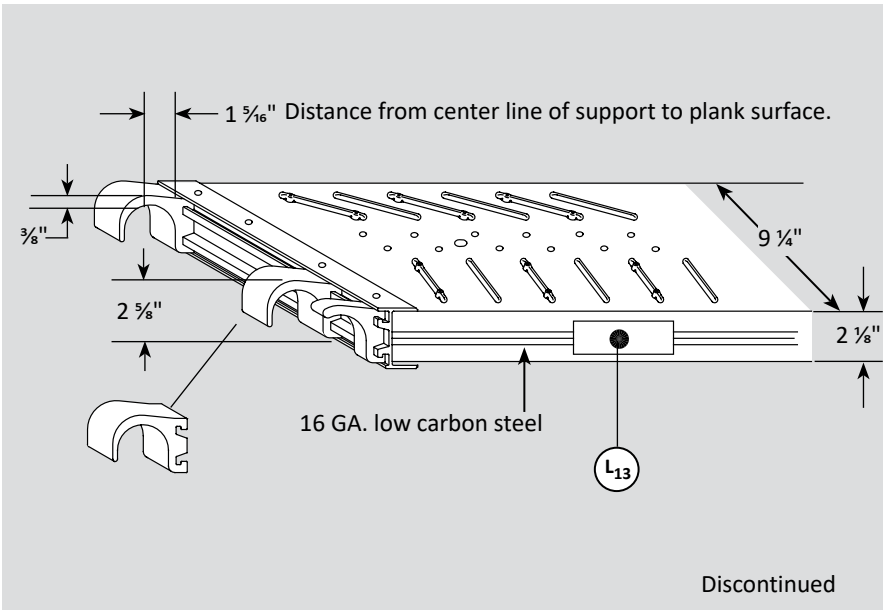
Part No.	Effective Length ft-in	Weight lb	Label
SSPH2	2'-0"	10.4	L_{13}
SSPH3	3'-0"	14.0	L_{13}
SSPH42	3'-6"	15.8	L_{13}
SSPH45	3'-9"	16.7	L_{13}
SSPH4	4'-0"	17.6	L_{13}
SSPH54	4'-6"	19.4	L_{13}
SSPH5	5'-0"	21.2	L_{13}
SSPH6	6'-0"	24.8	L_{13}
SSPH7	7'-0"	28.4	L_{13}
SSPH8	8'-0"	32.0	L_{13}
SSPH9	9'-0"	35.6	L_{13}
SSPH10	10'-0"	39.2	L_{13}



Discontinued

Low Hook Duraplank®

Part No.	Effective Length ft-in	Weight lb	Label
FSPH2	2'-0"	8.6	L_{13}
FSPH3	3'-0"	12.2	L_{13}
FSPH42	3'-6"	14.0	L_{13}
FSPH45	3'-9"	14.9	L_{13}
FSPH4	4'-0"	15.8	L_{13}
FSPH54	4'-6"	17.6	L_{13}
FSPH5	5'-0"	19.4	L_{13}
FSPH6	6'-0"	23.0	L_{13}
FSPH7	7'-0"	26.6	L_{13}
FSPH8	8'-0"	30.2	L_{13}
FSPH9	9'-0"	33.8	L_{13}
FSPH10	10'-0"	37.4	L_{13}



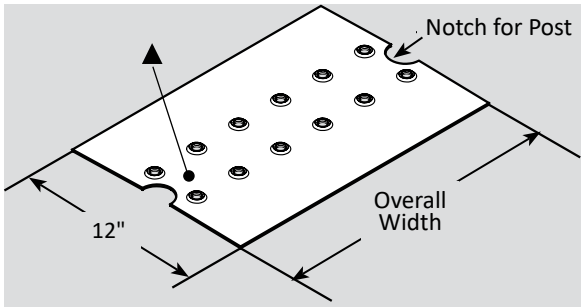
Discontinued

Component Identification

Plank Fillers

Part No.	Overall Width ft-in	Weight lb
SPF18	1'-5¾"	7.0
SPF2	1'-11¾"	9.2
SPF3	2'-11¾"	13.7
SPF45	3'-8¾"	17.0

Note: SPF18 only has notch at one end.



SPF_

Metal Toeboards

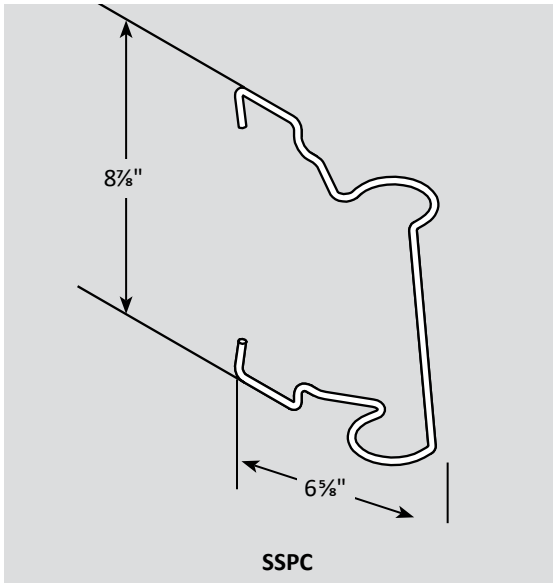
Part No.	Effective Length ft-in	Overall Length ft-in	Weight lb
SMT2	2'-0"	2'-2⁹⁄₁₆"	7.1
SMT33	2'-9"	2'-11⁹⁄₁₆"	8.9
SMT3	3'-0"	3'-2⁹⁄₁₆"	9.5
SMT42	3'-6"	3'-8⁹⁄₁₆"	10.9
SMT45	3'-9"	3'-11⁹⁄₁₆"	11.6
SMT4	4'-0"	4'-2⁹⁄₁₆"	12.6
SMT54	4'-6"	4'-8⁹⁄₁₆"	14.0
SMT5	5'-0"	5'-2⁹⁄₁₆"	14.9
SMT6	6'-0"	6'-2⁹⁄₁₆"	18.1
SMT7	7'-0"	7'-2⁹⁄₁₆"	20.2
SMT8	8'-0"	8'-2⁹⁄₁₆"	23.6
SMT9	9'-0"	9'-2⁹⁄₁₆"	25.5
SMT10	10'-0"	10'-2⁹⁄₁₆"	28.2

Note: Recommended for use with steel planks.

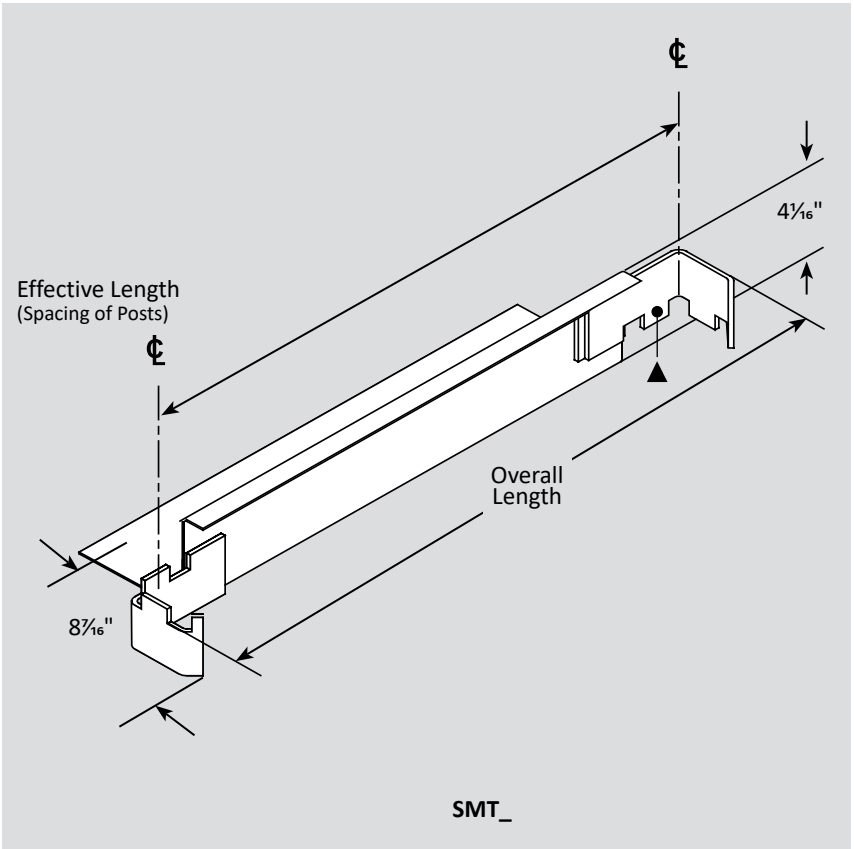
Steel Plank Clip

Part No.	Weight lb
SSPC	0.2

Note: Toeboard clip is needed when steel plank (SSP or SSPH) is used as a toeboard.



SSPC



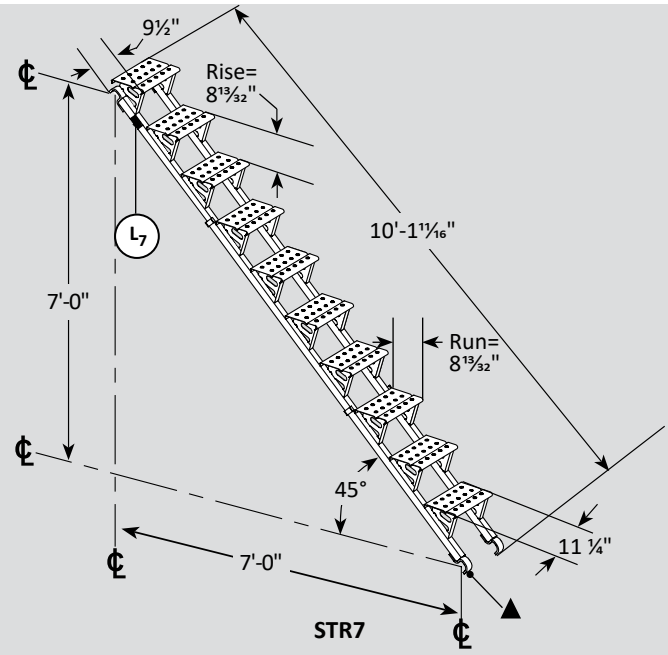
SMT_

Component Identification

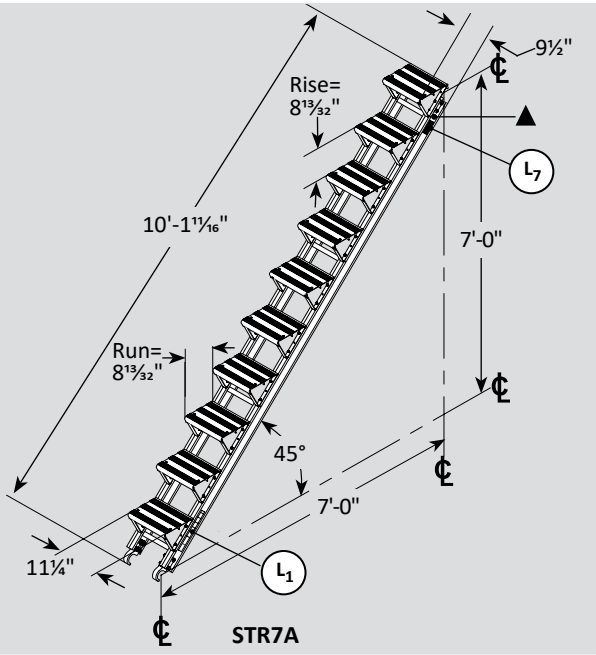
Stair Units

Part No.	Weight lb	Label	Material
STR7	74.2	L_7	Steel
STR7A	52.4	L_1, L_7	Aluminum

Note: STR42 also available



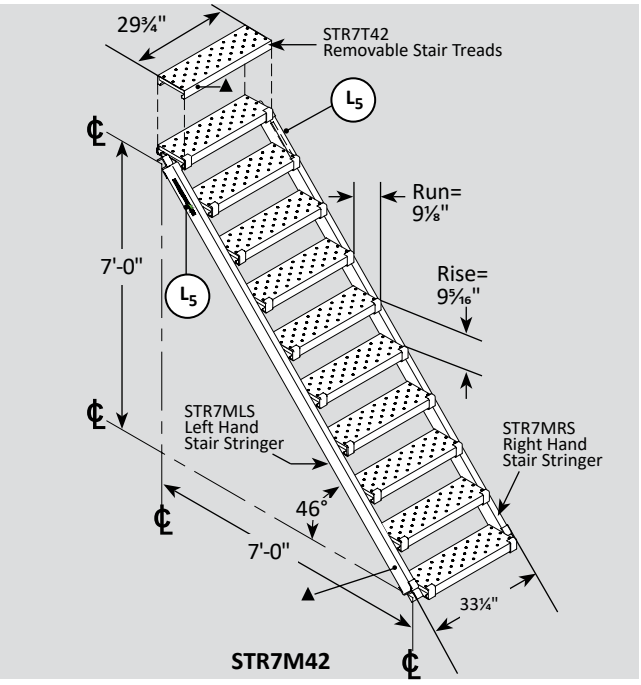
STR7



STR7A

STR7M42 Modular Stairs

Part No.	Weight lb	Label
STR7MLS	59.5	L_5
STR7MRS	59.5	L_5
STR7T42	12.0	

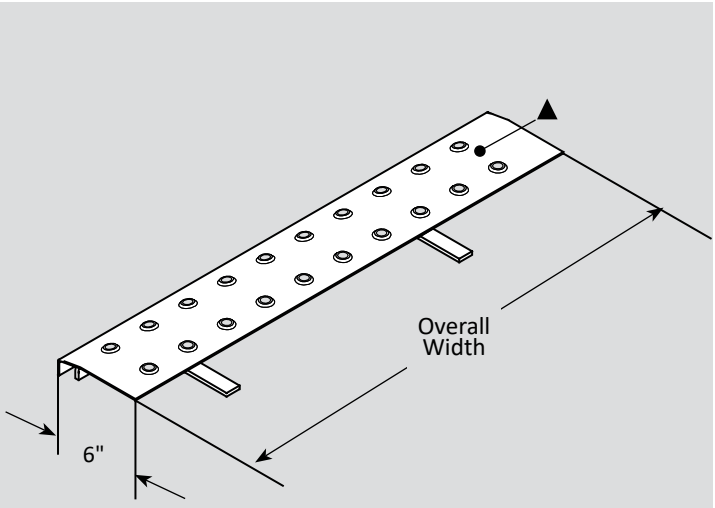


STR7M42

Stair Fillers

Part No.	Overall Width ft-in	Weight lb
SSF3	2'-8¾"	10.3
SSF42	3'-2¾"	9.8
SSF54	4'-2¾"	13.0

For use with STR7 and STR7A only.

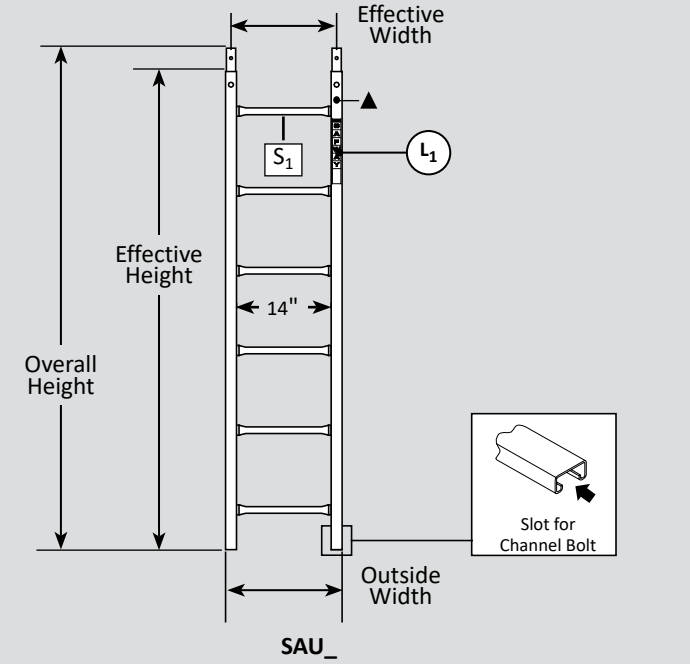


SSF_

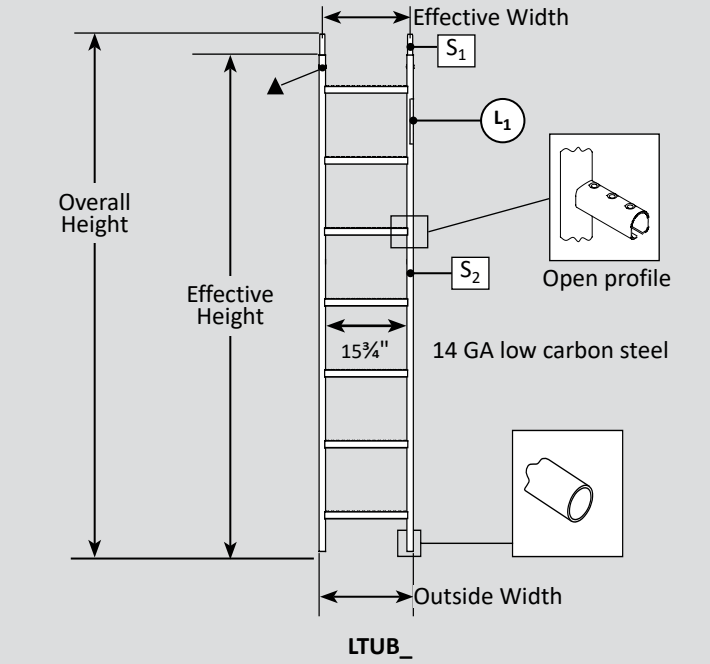
Component Identification

Scaffold Access Unit

Part No.	Overall Height	Effective Height	Outside Width	Effective Width	Weight Painted	Weight Galvanized	Label	Material
	ft-in	ft-in	ft-in	ft-in	lb	lb		
SAU3	3'-3½"	3'-0"	1'-5¼"	1'-3⅜"	9.6	10.7	L_1	S_1
SAU6	6'-3½"	6'-0"	1'-5¼"	1'-3⅜"	18.3	20.2	L_1	S_1
LTUB4	4'-3½"	4'-0"	1'-6¼"	1'-5"	N/A	14.2	L_1	S_1, S_2
LTUB7	7'-3½"	7'-0"	1'-6¼"	1'-5"	N/A	24.1	L_1	S_1, S_2



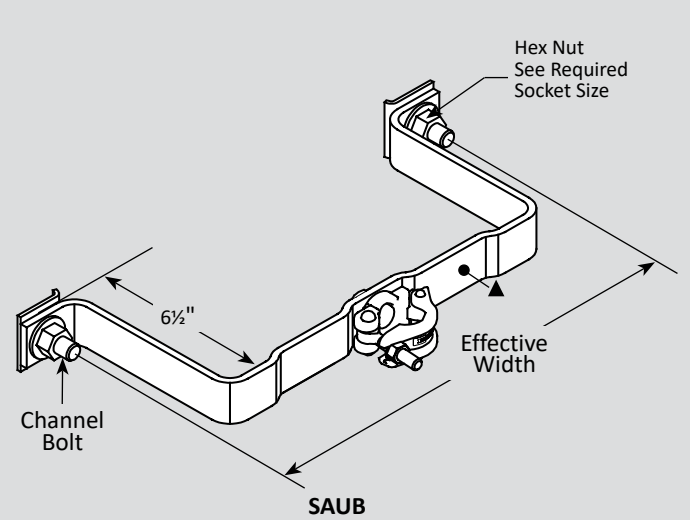
SAU_



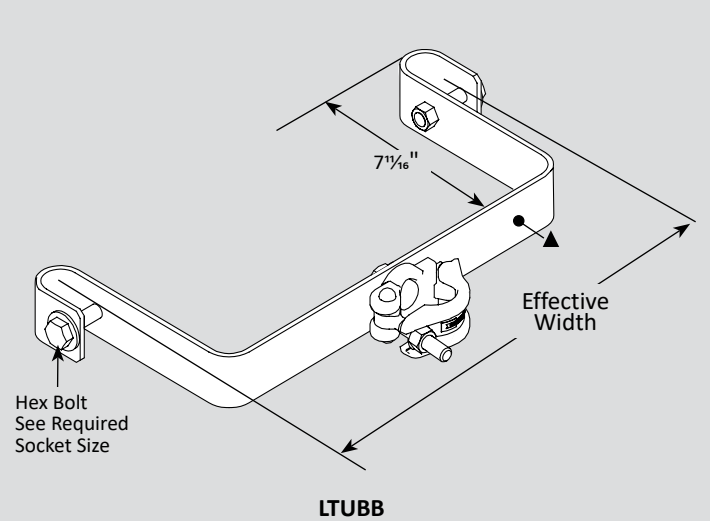
LTUB_

Scaffold Access Unit Bracket

Part No.	Effective Width	Weight Painted	Weight Galvanized	Required Socket Size
	ft-in	lb	lb	in
SAUB	1'-3⅜"	5.8	6.0	⅞"
LTUBB	1'-5"	N/A	6.8	⅞"



SAUB

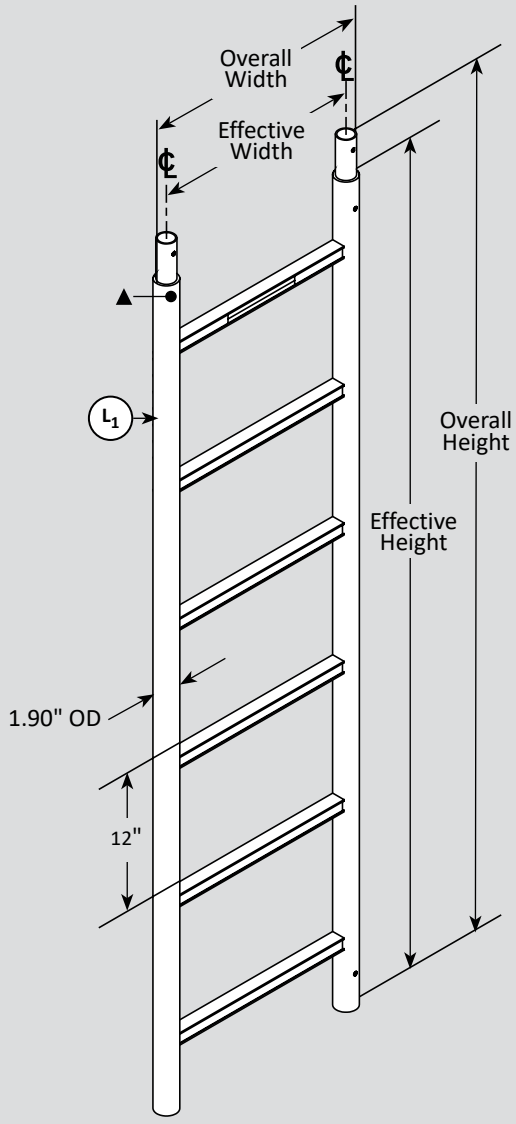


LTUBB

Component Identification

Pipe Access Ladder

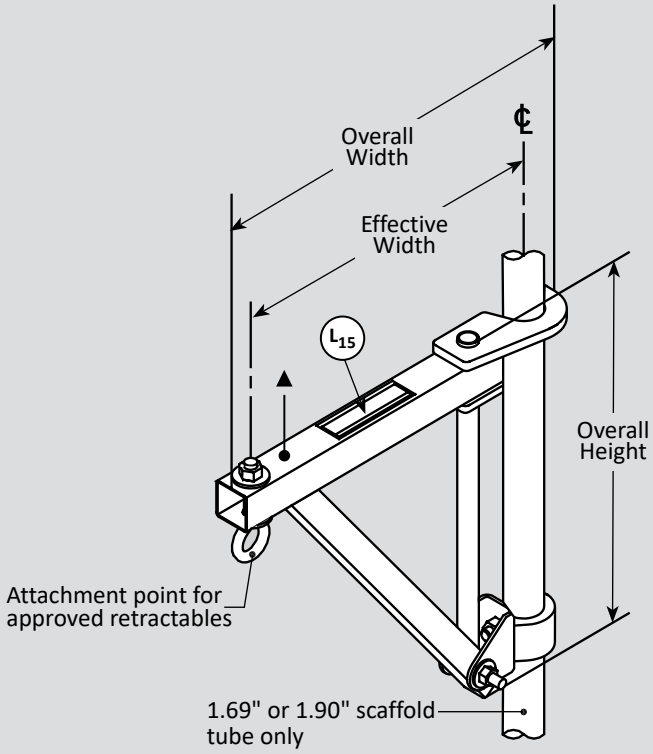
Part No.	Effective Width	Overall Width	Effective Height	Overall Height	Weight	Label	Material
	in	in	ft-in	ft-in	lb		
SALCS212	12⅜"	14¼"	2'-0"	2'-3½"	7.0	L_1	6061-T6 Aluminum
SALCS312	12⅜"	14¼"	3'-0"	3'-3½"	9.4	L_1	6061-T6 Aluminum
SALCS612	12⅜"	14¼"	6'-0"	6'-3½"	16.8	L_1	6061-T6 Aluminum
SALCS218	17⅝"	19½"	2'-0"	2'-3½"	7.6	L_1	6061-T6 Aluminum
SALCS318	17⅝"	19½"	3'-0"	3'-3½"	10.3	L_1	6061-T6 Aluminum
SALCS618	17⅝"	19½"	6'-0"	6'-3½"	18.6	L_1	6061-T6 Aluminum



SALCS_

Retractable Lifeline Bracket

Part No.	Effective Width	Overall Width	Overall Height	Weight	Label
	in	in	in	lb	
SRLB	17¹⁵⁄₁₆"	21⅛"	20"	14.8	L_{15}

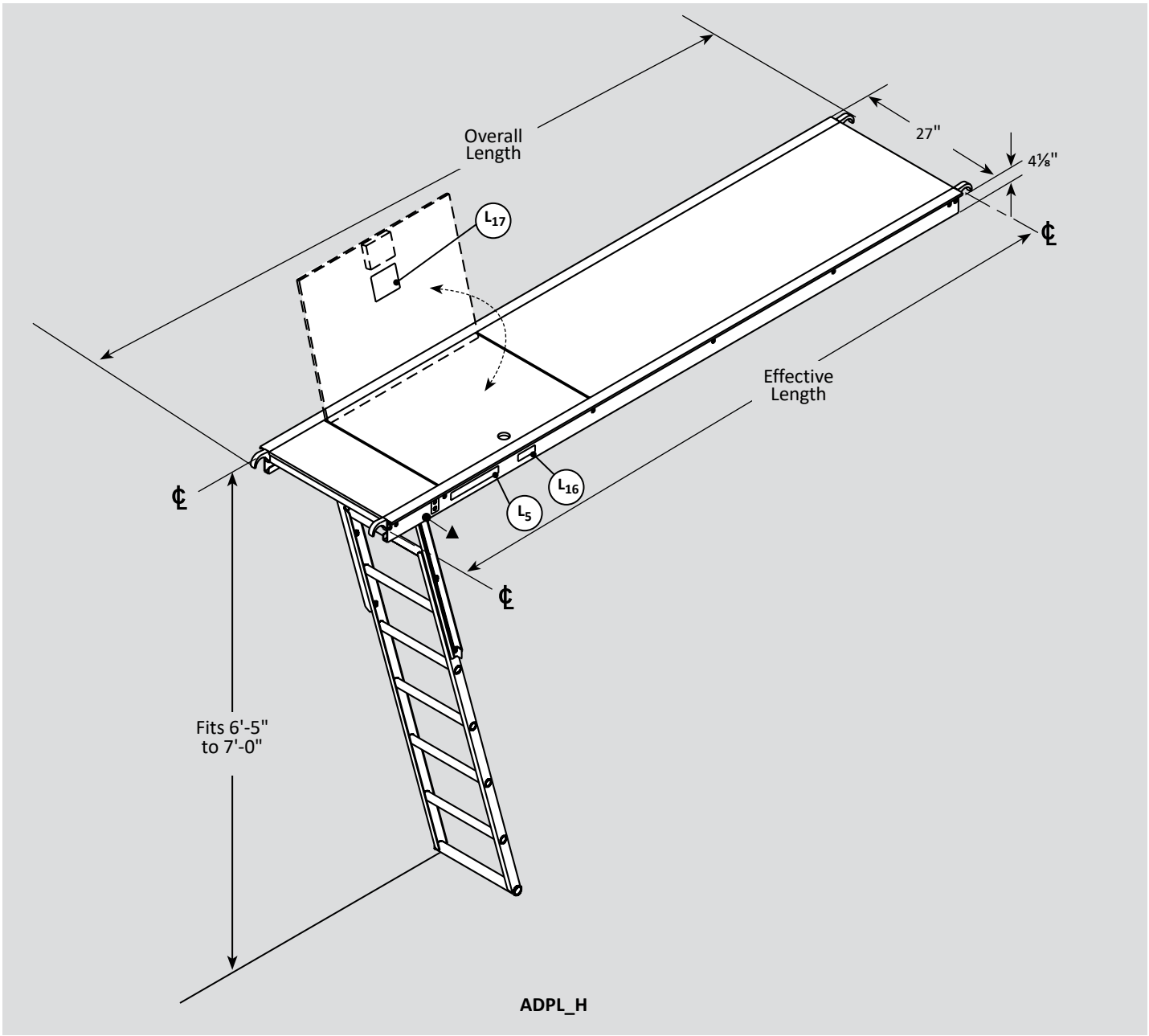


SRLB

Component Identification

Hatch Deck

Part No.	Effective Length ft-in	Overall Length ft-in	Weight lb	Label
ADPL7H	7'-0"	7'-2¾"	60.6	L_5, L_{16}, L_{17}
ADPL10H	10'-0"	10'-2¾"	73.3	L_5, L_{16}, L_{17}



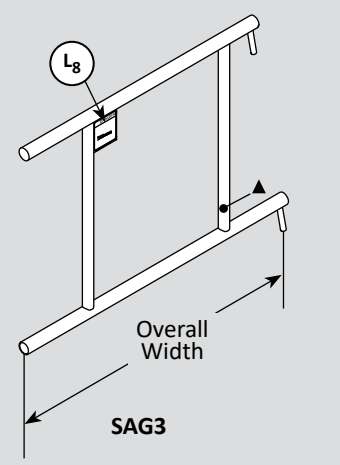
ADPL_H

Component Identification

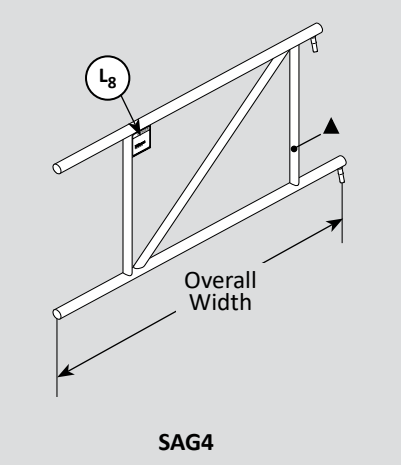
Access Gates

Part No.	Overall Width ft-in	Weight lb	Label
SAG3	2'-8 11/16"	8.8	L_8
SAG4	3'-8 11/16"	12.8	L_8
GRGA	*3'-0¾"	27.9	L_5 , L_{12}

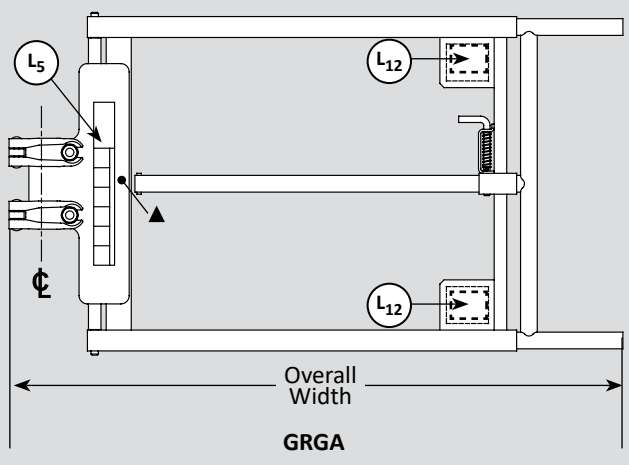
*** Dimension is when GRGA is fully telescoped in.**



SAG3



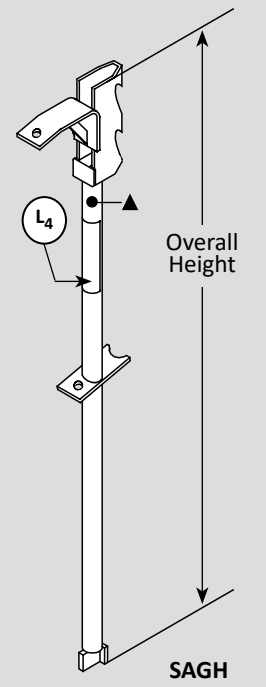
SAG4



GRGA

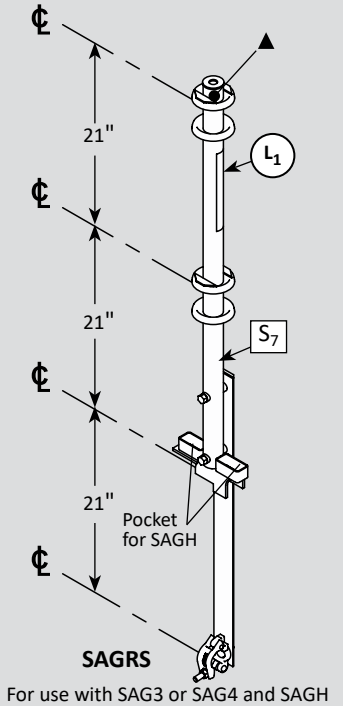
Gate Components

Part No.	Weight lb	Overall Height ft-in	Label	Material
SAGH	8.0	3'-7"	L_4	—
SAGRS	25.5	5'-4 7/16"	L_1	S_7
SAGP	20.6	7'-1⅝"	L_1	S_6
SAGSU	32.4	—	L_1	S_6



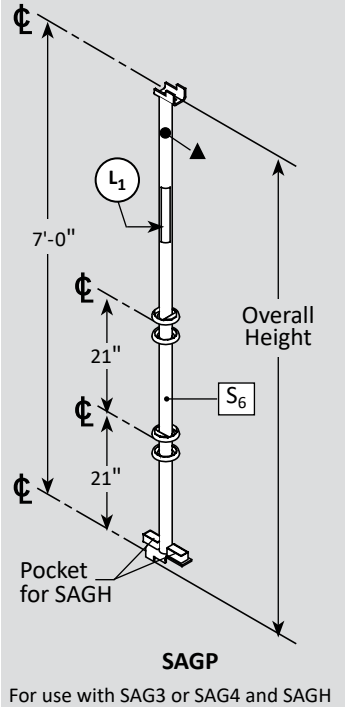
SAGH

Support for SAG3 and SAG4.



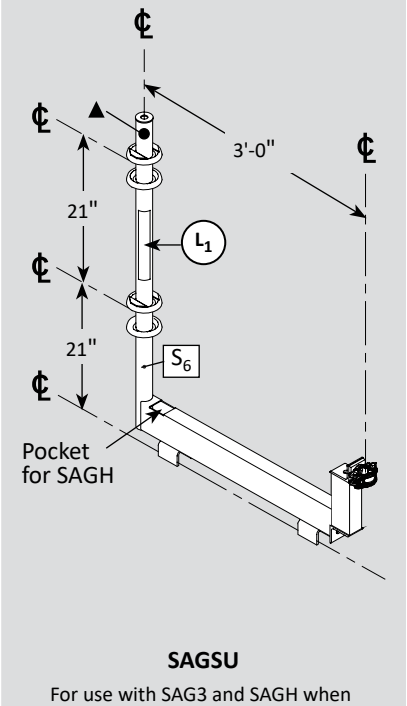
SAGRS

For use with SAG3 or SAG4 and SAGH when the width of an intermediate or top level access bay is 5' or greater.



SAGP

For use with SAG3 or SAG4 and SAGH when the width of an intermediate level access bay is 5' or greater.



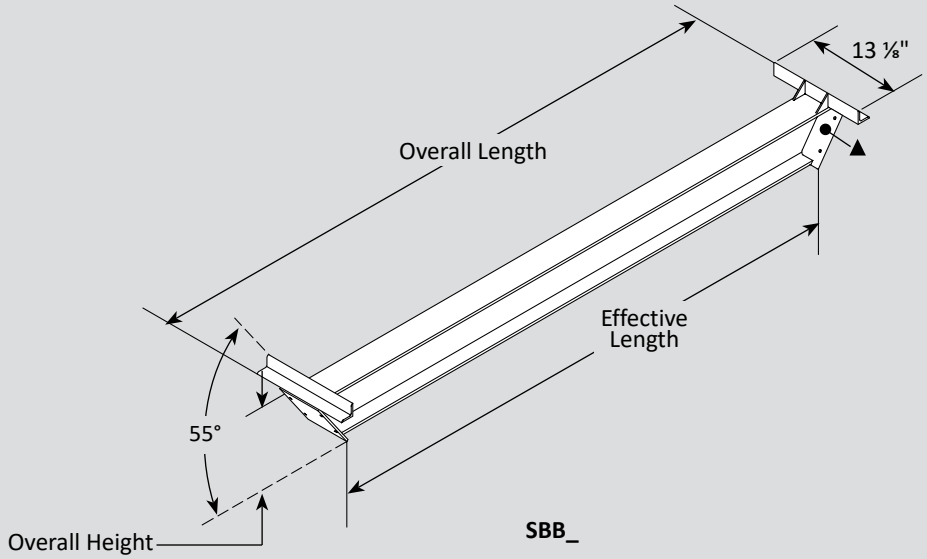
SAGSU

For use with SAG3 and SAGH when the width of the top scaffold level when access bay is 5' or greater.

Component Identification

Base Beams

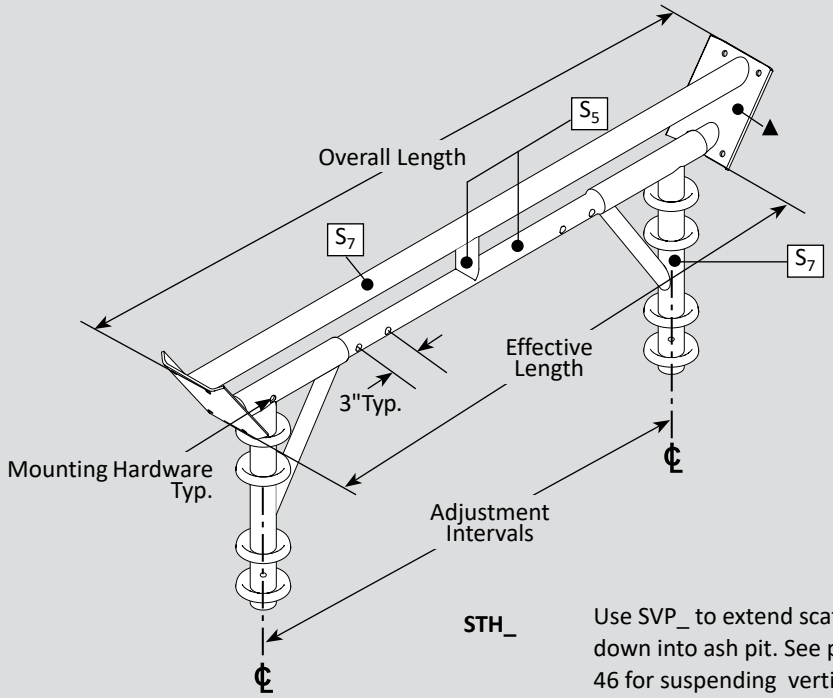
Part No.	Effective Length ft-in	Overall Length ft-in	Overall Height in	Beam in	Material	Weight lb
SBB6	6'-0"	7'-0 7/16"	8 1/4"	W6 X 16	ASTM A36 Steel	128.2
SBBA8	8'-0"	8'-11 7/8"	11 5/16"	WF8 X 10.72	6061-T6 Aluminum	107.3



SBB_

Throat Headers

Part No.	Overall Length ft-in	Adjustment Intervals ft-in	Effective Length ft-in	Weight lb	Material
STH4	4'-9 5/8"	1'-6", 2'-0", 2'-6", 3'-0", 3'-6"	4'-0 1/2"	41.5	S_5, S_7
STH6	6'-5 5/8"	2'-0", 3'-0", 3'-6"	5'-8 1/2"	48.8	S_5, S_7



STH_

Use SVP_ to extend scaffold down into ash pit. See page 46 for suspending vertical posts.

Mounting Hardware

Bolt	Nut	Lock Washer
5143A0802	5163A0002	5182A0002

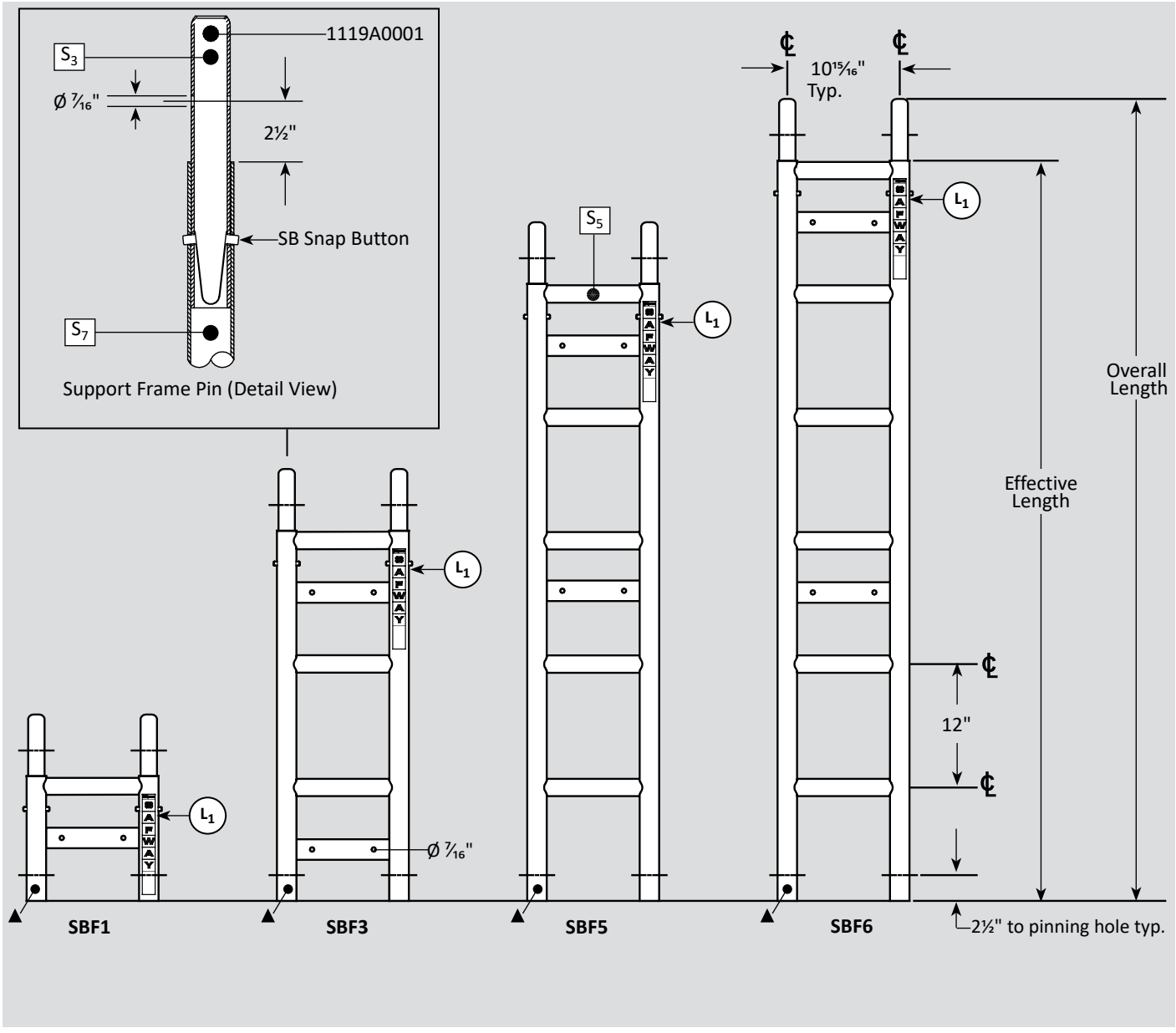
Replacement Components: 2 bolts and nuts required per throat header

Component Identification

Support Frames

Part No.	Effective Length ft-in	Overall Length ft-in	Weight lb	Label	Material
SBF1	1'-0"	1'-6"	12.7	L_1	S_3, S_5, S_7
SBF3	3'-0"	3'-6"	27.4	L_1	S_3, S_5, S_7
SBF5	5'-0"	5'-6"	39.9	L_1	S_3, S_5, S_7
SBF6	6'-0"	6'-6"	46.2	L_1	S_3, S_5, S_7

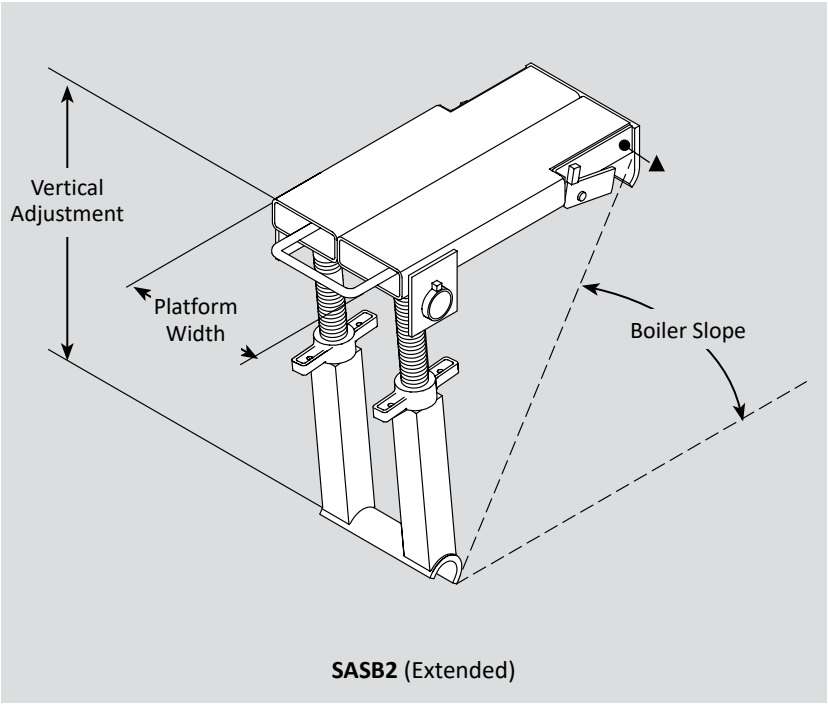
Note: Support Frames are not to be used as access ladders.



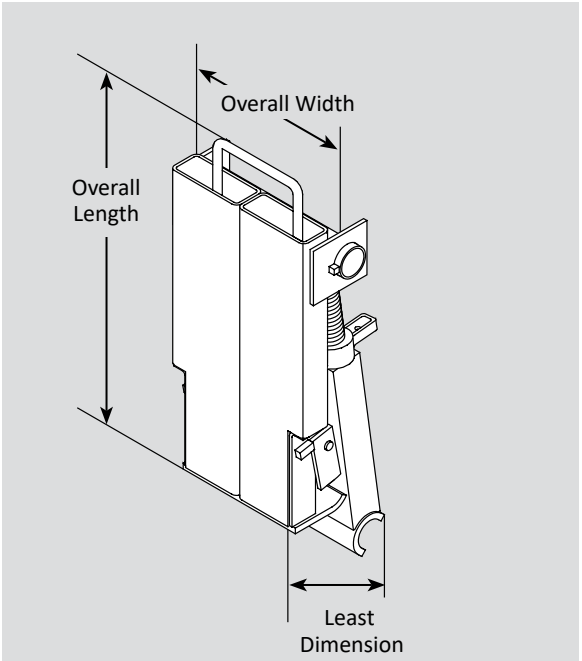
Component Identification

Adjustable Support Bracket

Part No.	Platform Width in	Overall Width ft-in	Least Dimension in	Vertical Adjustment ft-in	Overall Length ft-in	Boiler Slope Min-Max	Weight lb
SASB2	10"	1'-0¼"	7"	1'-6½" to 2'-0"	1'-7"	45°-60°	52.3



SASB2 (Extended)

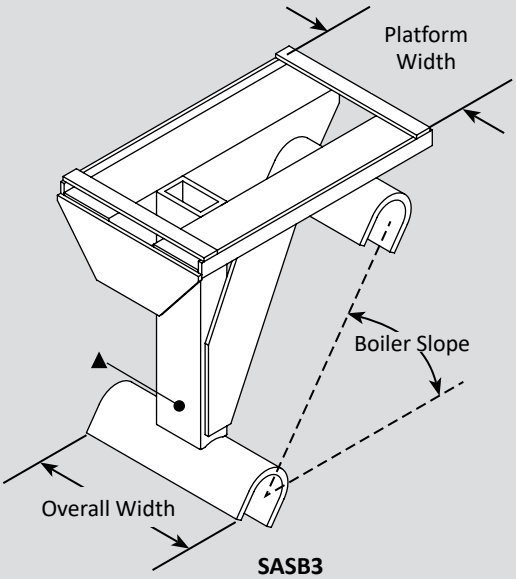


SASB2

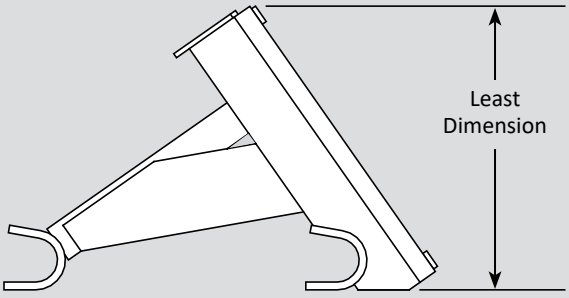
Fixed Support Bracket

Part No.	Platform Width in	Overall Width in	Least Dimension	Boiler Slope	Weight lb
SASB3	7½"	8⅜"	11¼"	55°	27.1

Note: Only SSJ may be used on the SASB3



SASB3
(Only Use With SSJ)

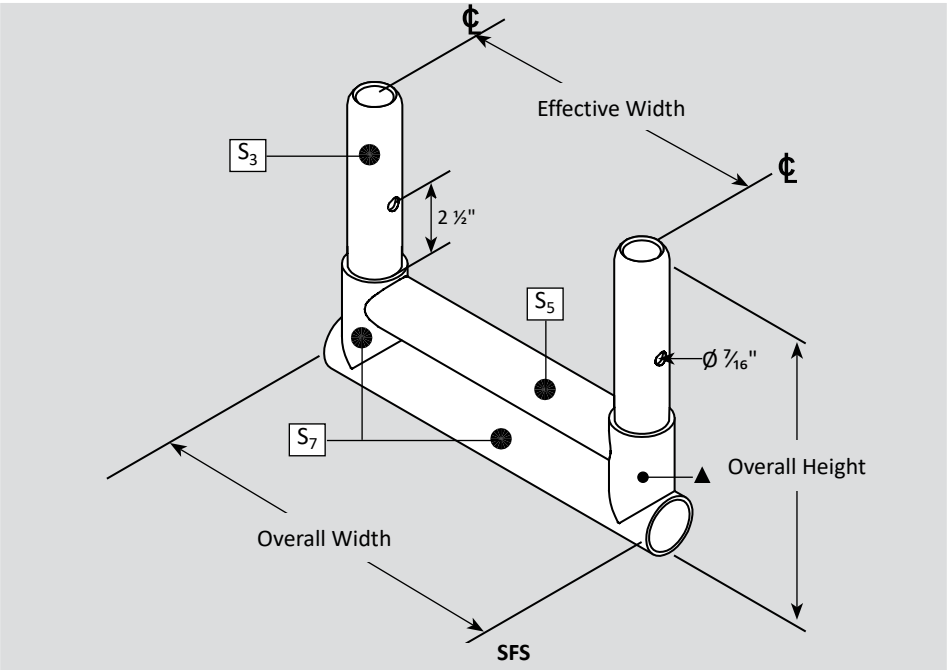


SASB3 (Side View)

Component Identification

Support Frame Starter

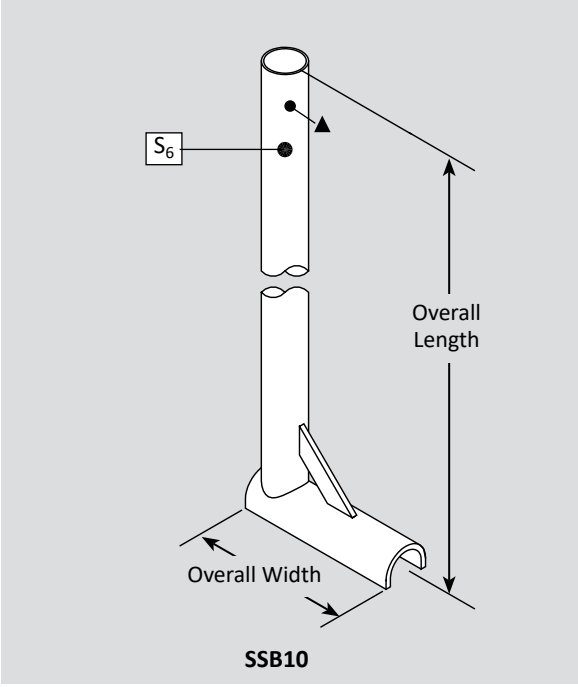
Part No.	Overall Width ft-in	Effective Width in	Overall Height in	Weight lb	Material
SFS	1'-1 3/16"	10 15/16"	10 3/16"	7.8	S_3, S_5, S_7



SFS

Saddle Brace

Part No.	Overall Width in	Overall Length ft-in	Weight lb	Material
SSB10	8"	9'-6½"	22.2	S_6

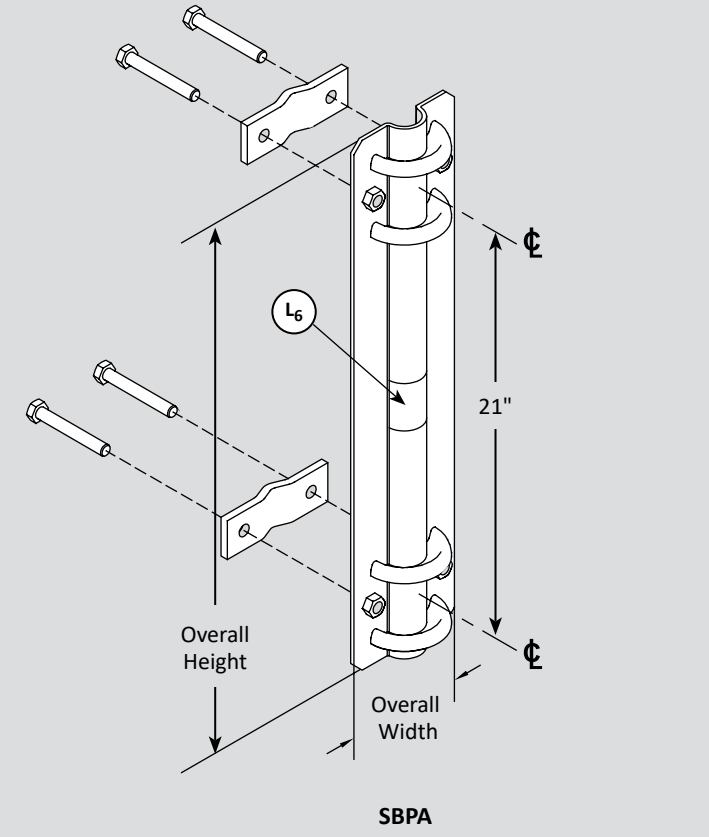


SSB10

Component Identification

Boiler Pendant Adapter

Part No.	Overall Height ft-in	Overall Width in	Weight lb	Label
SBPA	2'-3⅜"	6"	15.0	L_6



SBPA

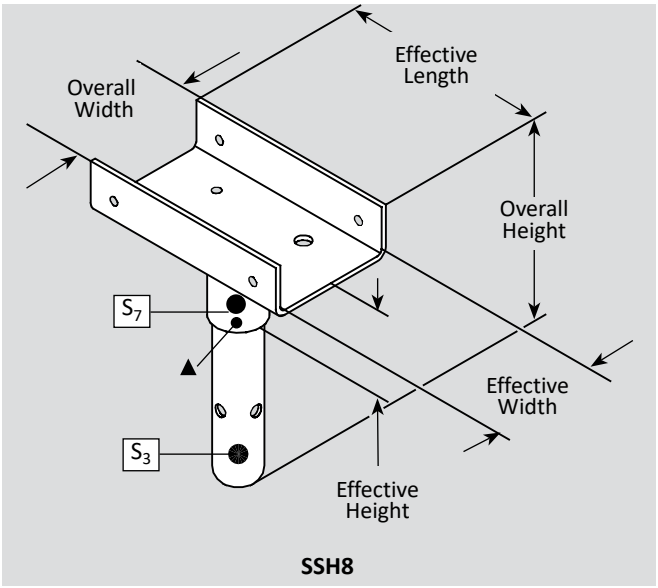
Mounting Hardware

Bolt	Plate
03X5159A0001	03X3160A0001

Replacement Components: 4 bolts and 2 plates required per SBPA

U-Head

Part No.	Effective Length in	Effective Width in	Overall Width in	Effective Height in	Overall Height in	Weight lb	Material
SSH8	8"	4"	4¾"	3⅜"	11"	5.6	S_3, S_7

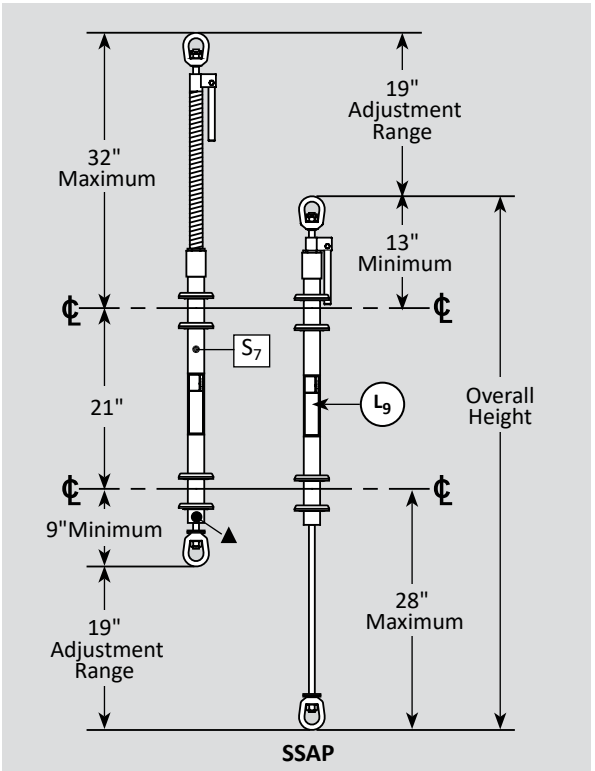


SSH8

Component Identification

Suspended Adjustable Post

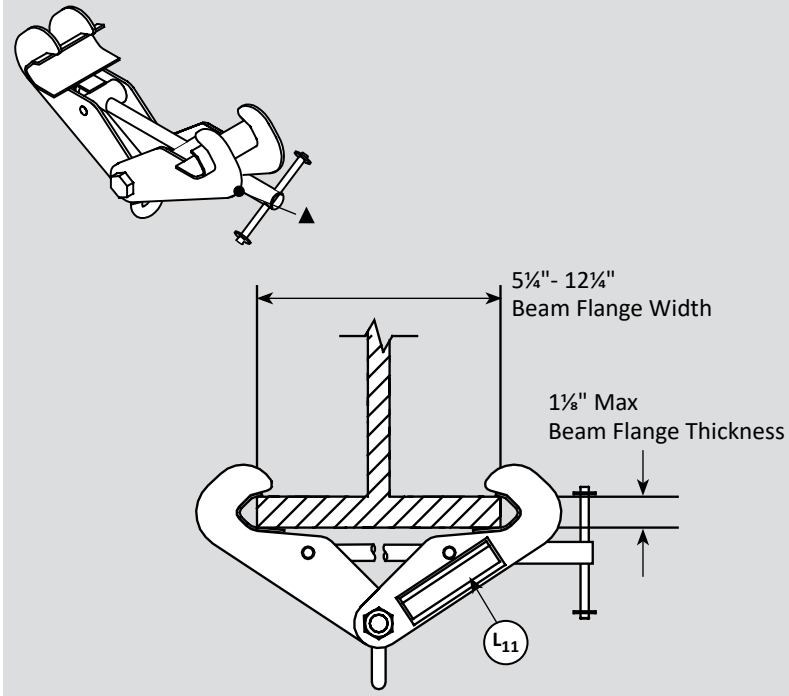
Part No.	Overall Height ft-in	Weight lb	Label	Material
SSAP	5'-2"	31.1	L_9	S_7



SSAP

Adjustable Beam Clamp

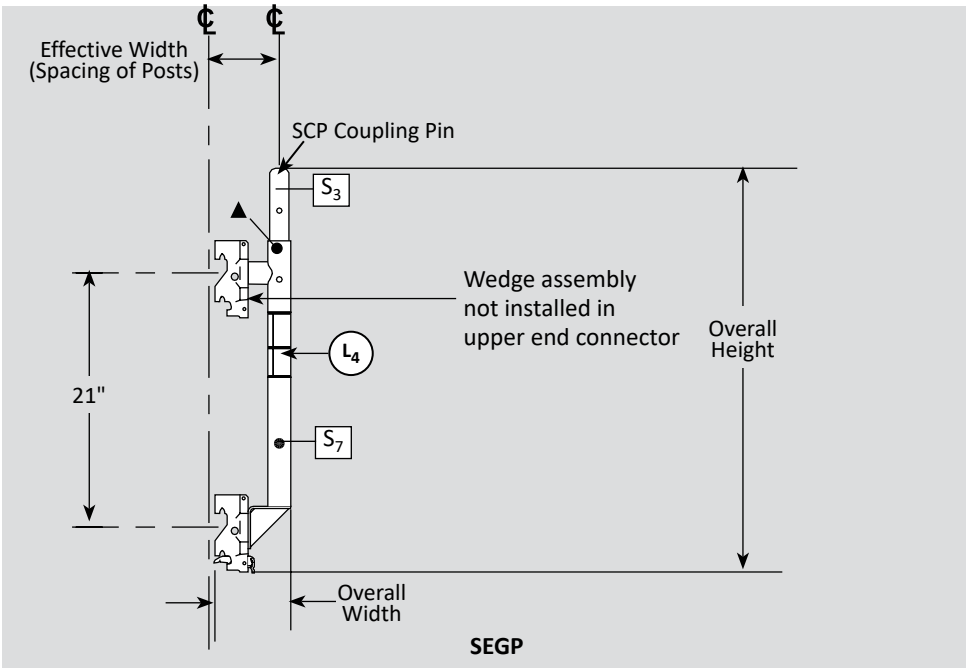
Part No.	Beam Flange Width in	Beam Flange Thickness in	Weight lb	Label
BCA	5¼" -12¼"	1⅛"	13.8	L_{11}



BCA

External Guard Rail Post

Part No.	Overall Height ft-in	Overall Width in	Effective Width in	Weight lb	Label	Material
SEGP	2'-9⅜"	6¼"	6⅜"	12.6	L_4	S_3, S_7

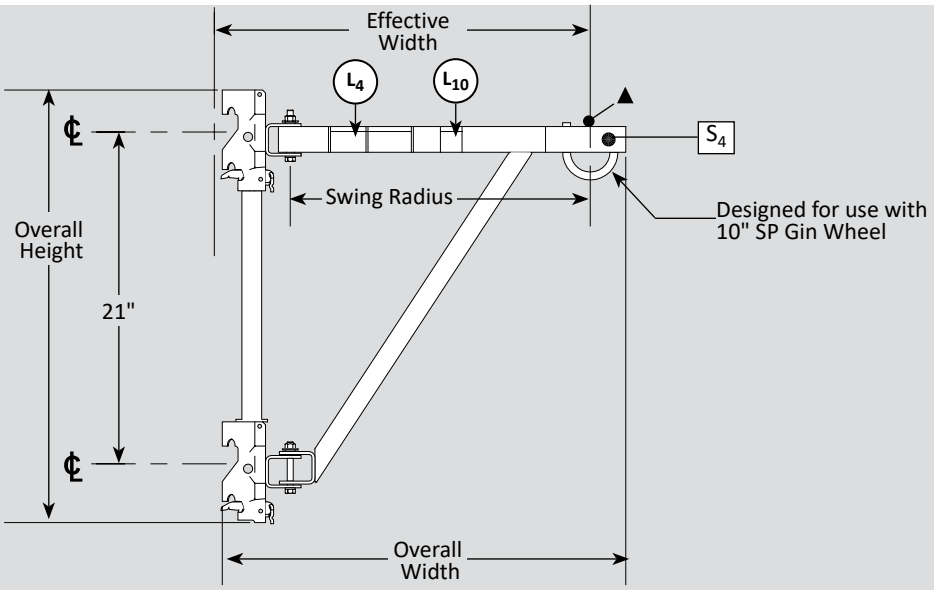


SEGP

Component Identification

Hoist Arm

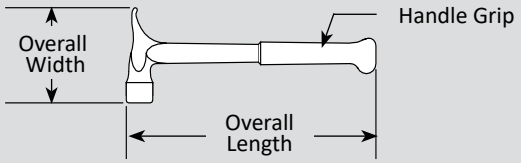
Part No.	Effective Width	Overall Width	Overall Height	Swing Radius	Weight	Label	Material
	ft-in	ft-in	ft-in	ft-in	lb		
SHA	2'-0⅜"	2'-1⅞₁₆"	2'-3½"	1'-7"	13.5	L_4, L_{10}	S_4



SHA

Pry Bar Hammer

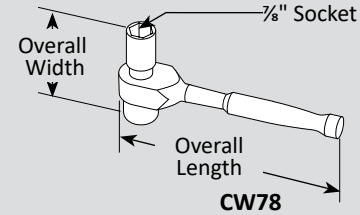
Part No.	Overall Width	Overall Length	Weight
	in	in	lb
SPBH	4½"	13"	2.3



SPBH

Tube and Clamp Wrench

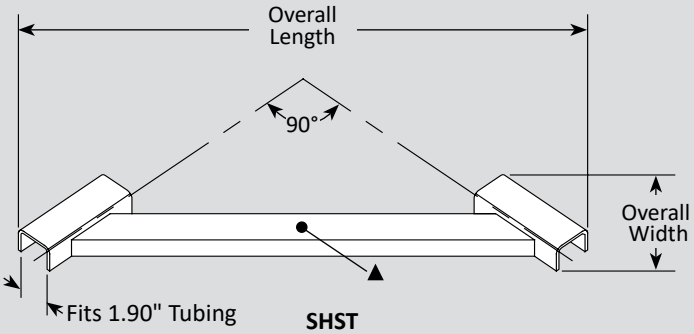
Part No.	Overall Width	Overall Length	Weight
	in	in	lb
CW78	4⅛"	9⁷⁄₁₆"	2.2



CW78

Horizontal Squaring Tool

Part No.	Overall Width	Overall Length	Weight
	in	ft-in	lb
SHST	5⁹⁄₁₆"	2'-5⅜"	10.6



SHST

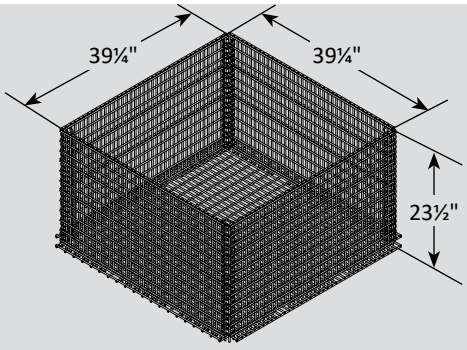
Component Identification

Storage Rack Bin

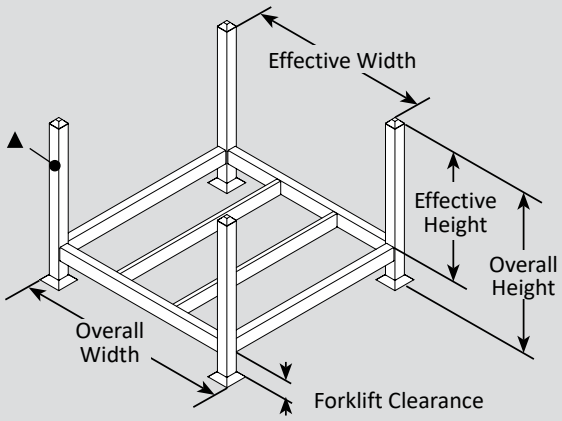
Part No.	Weight lb
SRB	134.7

Storage Rack

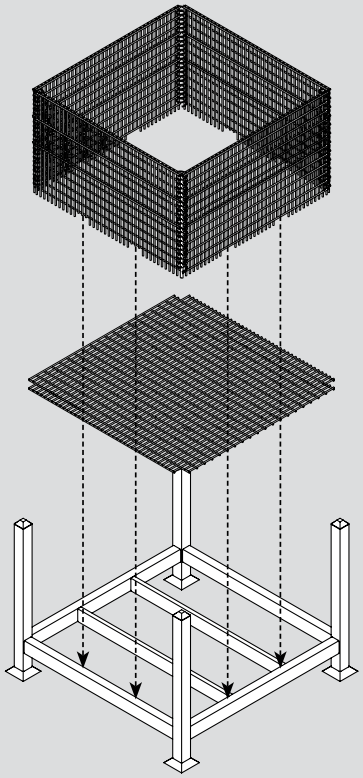
Part No.	Effective Width in	Effective Height in	Overall Width in	Overall Height in	Forklift Clearance in	Weight lb	Label
SRO	39¼" - 39⅜"	26½ "	45½" - 46 7⁄16"	34" - 34½ "	5"	128.0	L_1



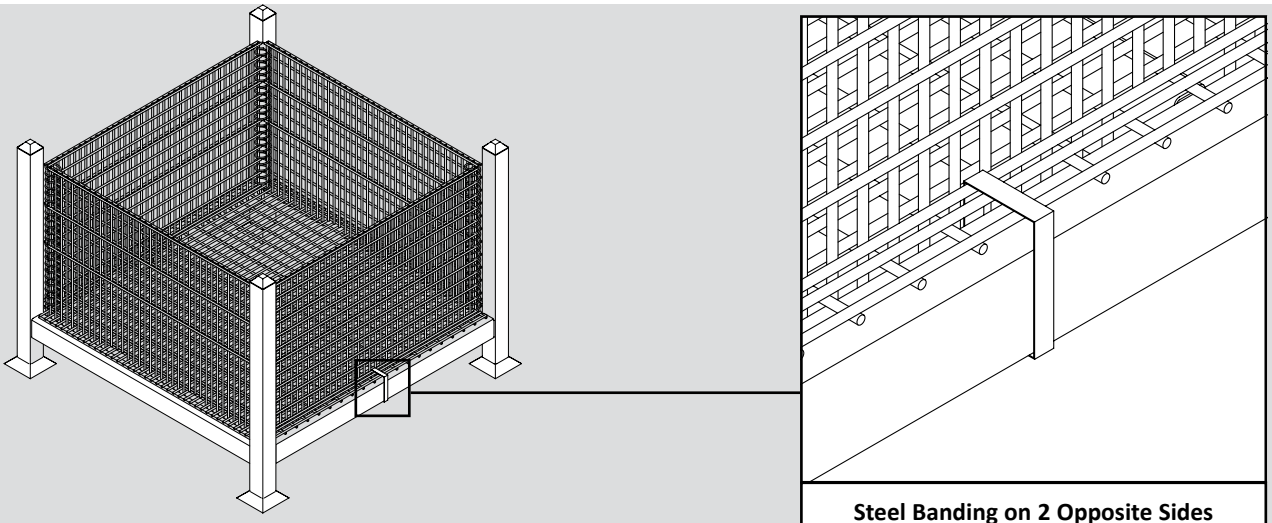
SRB



SRO



SRO/SRB Assembly

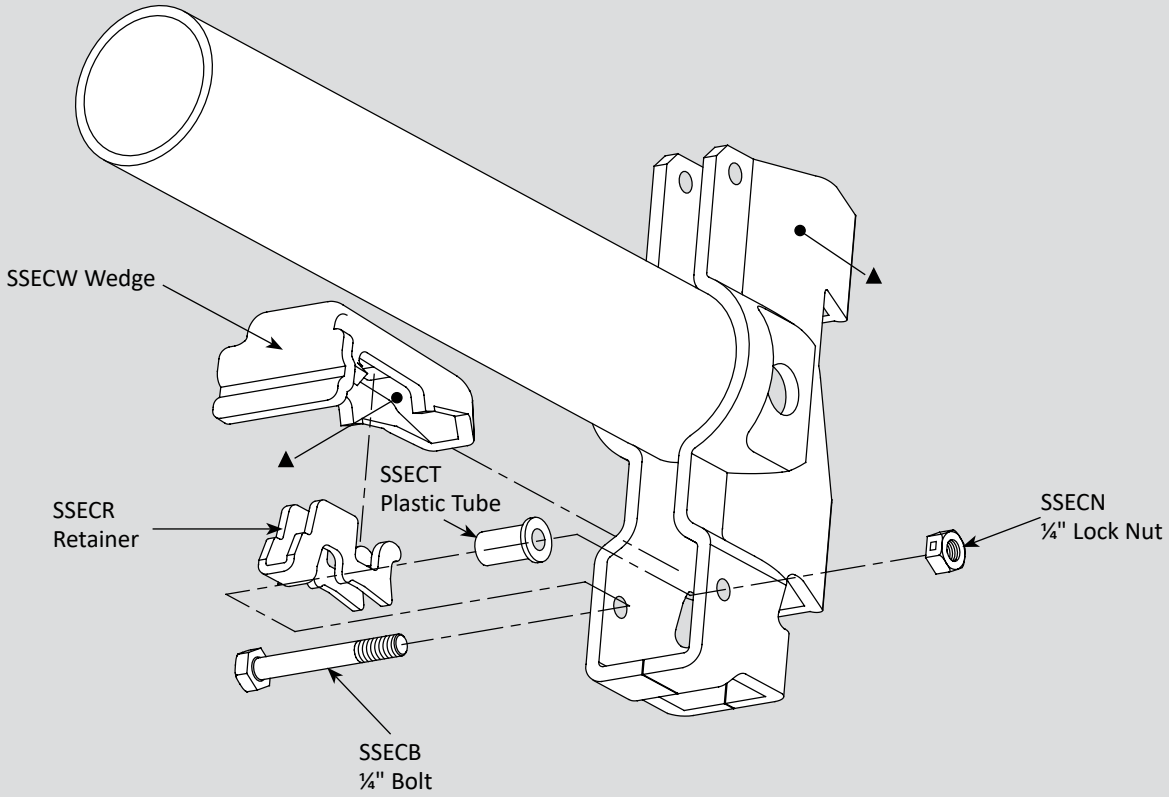


Steel Banding on 2 Opposite Sides

Component Identification

Wedge & Retainer Assembly

Part No.	Description	Weight lb
SSECT	Plastic Tube	
SSECR	Retainer	0.1
SSECW	Wedge	0.3
SSECN	¼" Lock Nut	0.007
SSECB	¼" Bolt	0.03
SSECA	Includes parts called out above	0.5



SSECA includes parts called out above.
See ORN 213 for details

SSECA

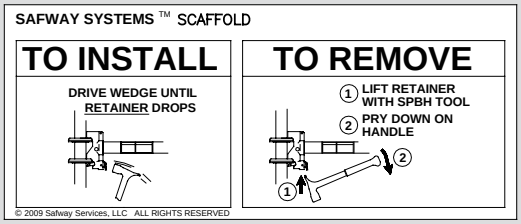
Assembly and Installation Instructions

Label Identification

REPLACE COMPONENT LABELS IF THEY ARE WORN, DEFACED OR ARE ILLEGIBLE.
IF REPLACEMENT LABELS ARE NEEDED, CONTACT YOUR LOCAL BRANDSAFWAY BRANCH.

L_1 (7112A0003)

L_3 (7112A0001)

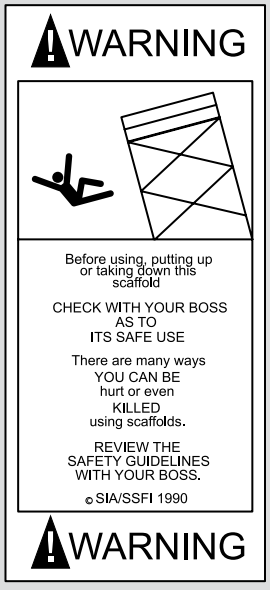


L_4 (7112A0002)

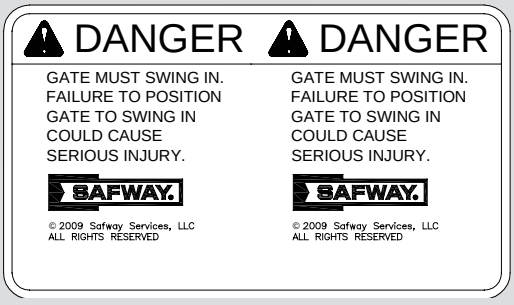
L_5 (7112A0105)

L_6 (7112A0155)

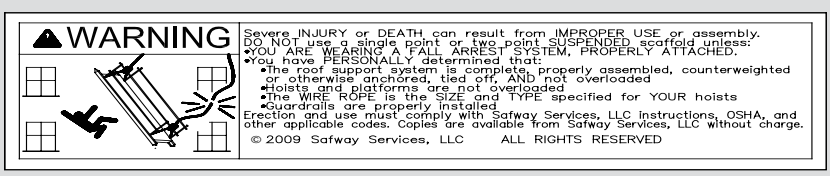
L_7 (7112A0004)



L_2 (7112A0038)

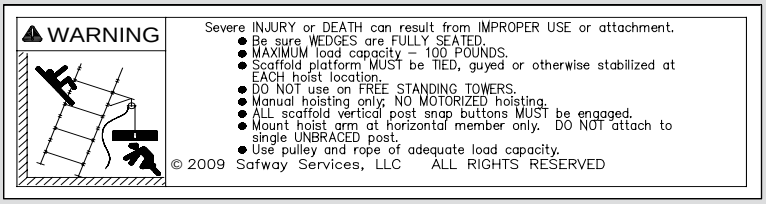


L_8 (7112A0019)



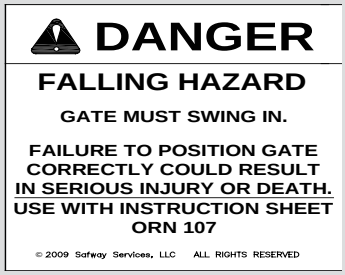
L_9 (7112A0006)

Label Identification



L_{10} (7112A0005)

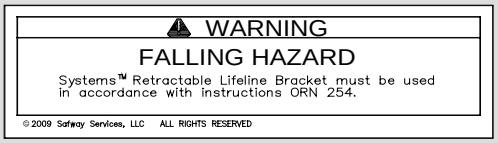
L_{11} (7112A0008)



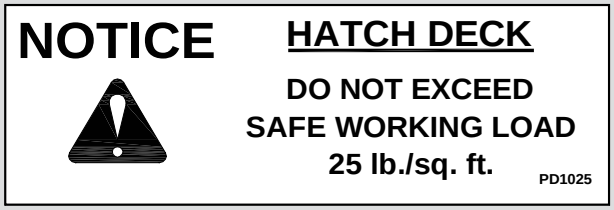
L_{12} (7112A0150)

L_{13} (7112A0101)

L_{14} (7112A0164)

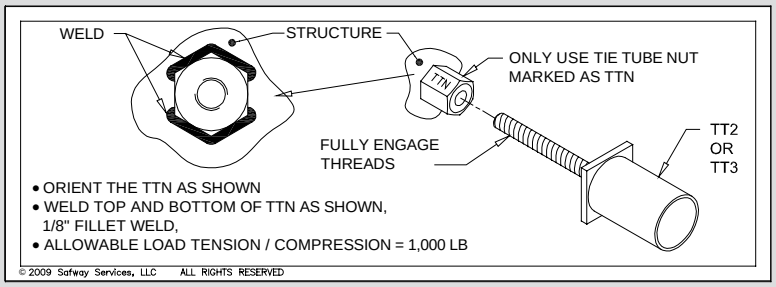


L_{15} (7112A0169)



L_{16} (7112A0156)

L_{17} (7112A0162)



L_{18} (7112A0171)

Technical Data & Component Allowable Loads

Section 2

This chapter contains illustrations and load ratings for the various BrandSafway Systems™ Components. The load ratings are based on the capacity of assemblies as shown or the individual components only. Refer to Section 3: Assembly Details and the warnings at front of manual before computing the scaffold loads.

Allowable loads specified in this chapter include a safety factor of 4:1. Federal OSHA Regulations require that each scaffold and scaffold component be capable of supporting its own weight and at least 4 times the maximum intended load applied to it. An appropriate dead load safety factor shall be applied to all scaffold designs in accordance with recognized and generally accepted good engineering practices.

When designing scaffolds with unique configurations or special loading conditions, consult with BrandSafway engineering or a qualified engineer familiar with scaffold design prior to design finalization.

Unless otherwise noted, in this section all vertical diagonals can be SDW, SDC or Tube & Clamp with CSA19's. Horizontal diagonals can be SHD or Tube & Clamp with CRA19's. Refer to page 74.

Technical Data

Steel Tube (S_1, S_2, S_3, S_4)

	S_1	S_2	S_3	S_4
OD	1.000 in	1.250 in	1.600 in	1.625 in
Wall	0.072 in	0.083 in	0.120 in	0.095 in
Area	0.2099 in^2	0.3043 in^2	0.5579 in^2	0.4566 in^2
Yield	50,000 psi	50,000 psi	50,000 psi	50,000 psi
Tensile	60,000 psi	60,000 psi	70,000 psi	70,000 psi
Elongation (min.)	25%	25%	20%	20%
Section Modulus	0.0455 in^3	0.0833 in^3	0.1922 in^3	0.1651 in^3
Moment of Inertia	0.0227 in^4	0.0521 in^4	0.1538 in^4	0.1341 in^4
Radius of Gyration	0.3291 in	0.4136 in	0.5250 in	0.5420 in

Steel Tube (S_5, S_6, S_7, S_8)

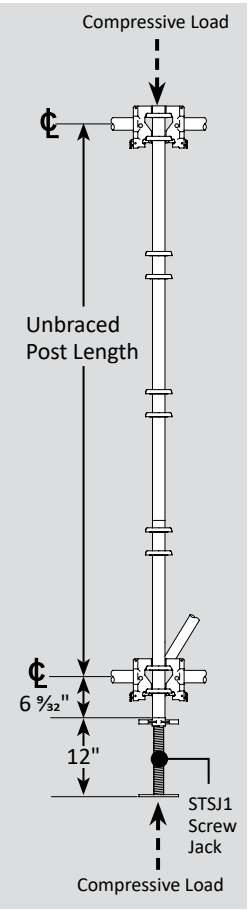
	S_5	S_6	S_7
OD	1.690 in	1.900 in	1.900 in
Wall	0.095 in	0.095 in	0.120 in
Area	0.4760 in^2	0.5387 in^2	0.6710 in^2
Yield	50,000 psi	50, 000 psi	50,000 psi
Tensile	70,000 psi	70,000 psi	70,000 psi
Elongation (min.)	20%	20%	20%
Section Modulus	0.1798 in^3	0.2316 in^3	0.2810 in^3
Moment of Inertia	0.1519 in^4	0.2200 in^4	0.2670 in^4
Radius of Gyration	0.5649 in	0.6390 in	0.6308 in

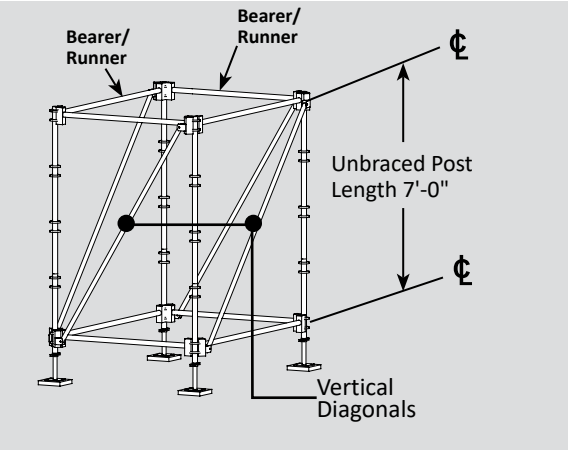
Component Allowable Loads

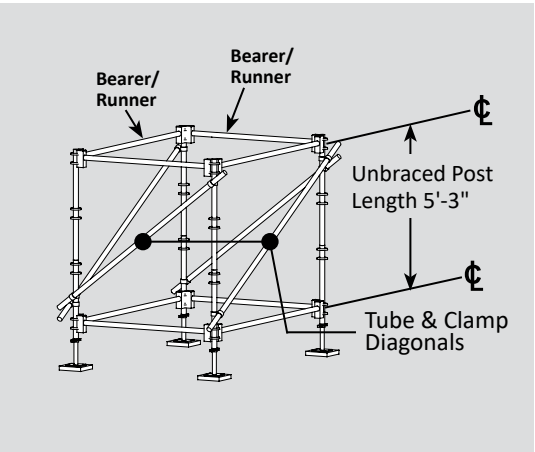
Vertical Post

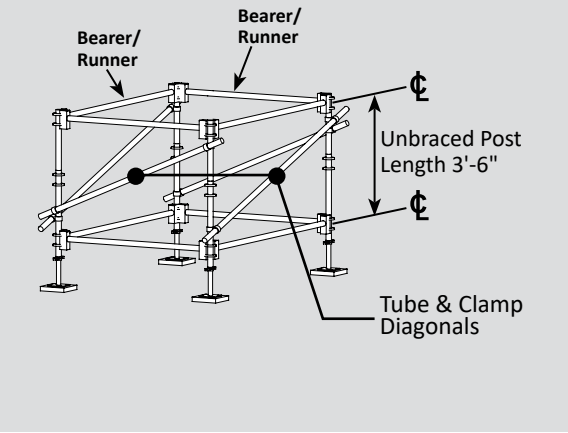
Unbraced Post Length (ft-in)	*Allowable Compressive Load (See Note 1) lb
7'-0"	4,000
5'-3"	5,950
3'-6"	7,300
1'-9"	8,100

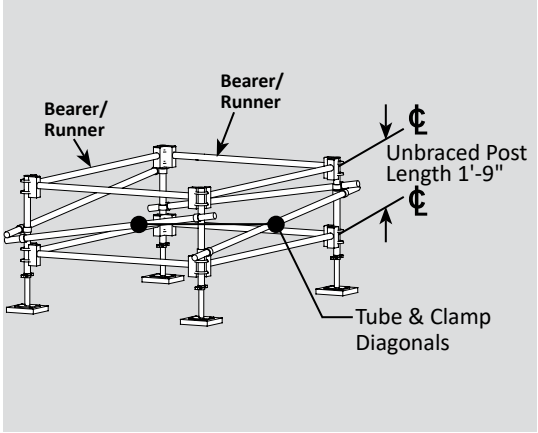
Vertical Diagonals installed at the same vertical increments as bearer/runners. Allowable compressive load is based on Vertical Diagonals connected to vertical posts at the same levels as bearer/runners. Refer to Section 4: Tying & Bracing of this manual for specific bracing requirements. Allowable compressive loads shown are based on the use of the STSJ1 at 12" Screw Jack extension.











Note: Loads shown are based on tests 3 lifts high in accordance with ANSI/SSFI SC-100 Standards for Testing and Rating Scaffold Assemblies and Components.

See Section 4 for additional loading information based on various scaffold configurations.

Note 1: Allowable loads shown are based on a maximum bay size of 7'-0" in either direction. When using 10'-0" bays in either direction the load capacity with an unbraced post length of 7'-0" is reduced to 3,800 lb. For bay sizes between 7'-0" to 10'-0", values may be interpolated.

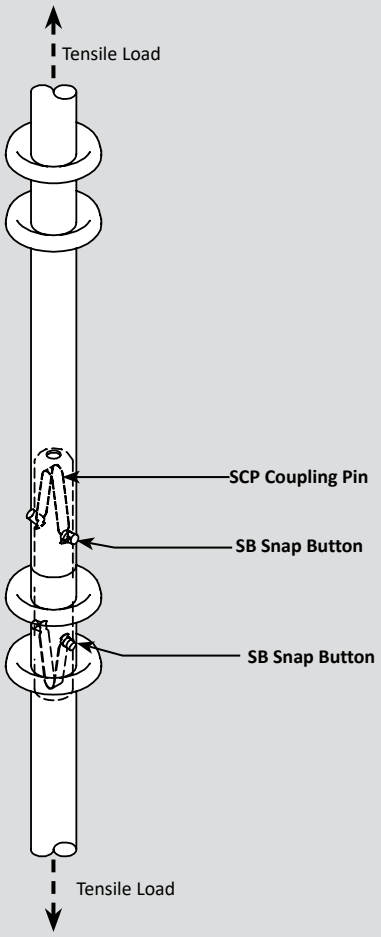
***** All allowable compressive loads shown are based on the use of SSC30's and STSJ1's installed at their base. Scaffolds without SSC30's and STSJ1's installed at their base may have reduced capacities. Contact BrandSafway Engineering for these applications.

Component Allowable Loads

Vertical Post Coupling Tensile Loads

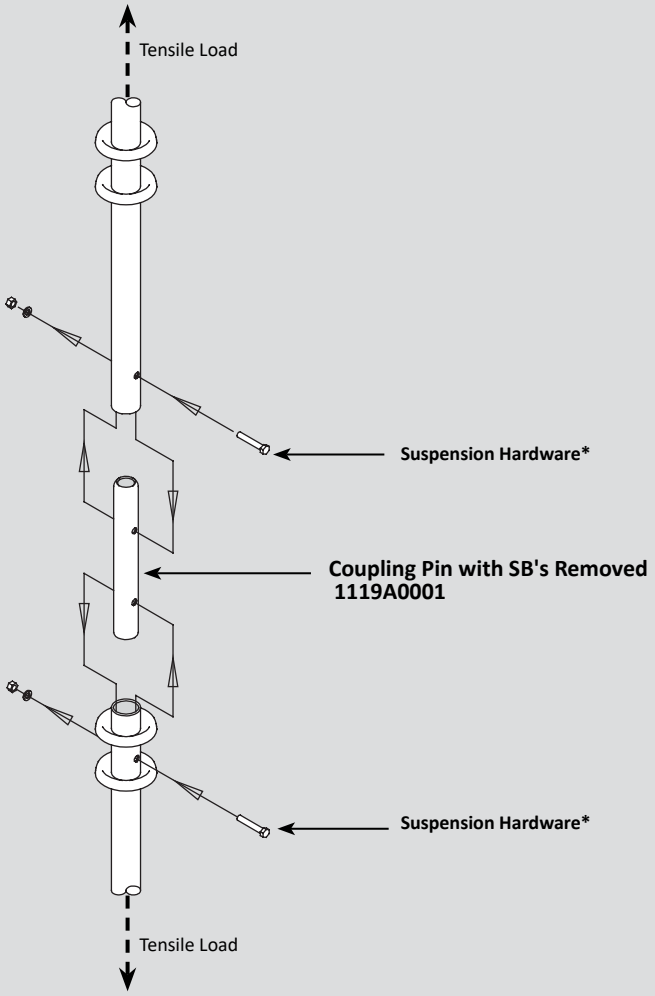
Coupling Type	Allowable Tensile Load lb
Typical Vertical Post Coupling Pin (Snap Buttons)	1,100
Suspension Vertical Post Coupling Pin (Bolted)	2,000

Contact BrandSafway Engineering for capacities relating to specific applications.



Typical Vertical Post Coupling Pin

Vertical post coupling pin connection components are designed to resist nominal tensile loads, such as those created by uplift and/or overturning loads. Do not use SB when suspending (hanging) scaffolds.



Suspension Vertical Post Coupling Pin

* When suspending (hanging) scaffold, bolt the coupling pin using suspension hardware as follows: Use two ⅜"-16 UNC X 2 ¼" long hex head bolts - Grade 5, ⅜" lock washers and ⅜"-16 UNC hex nuts.

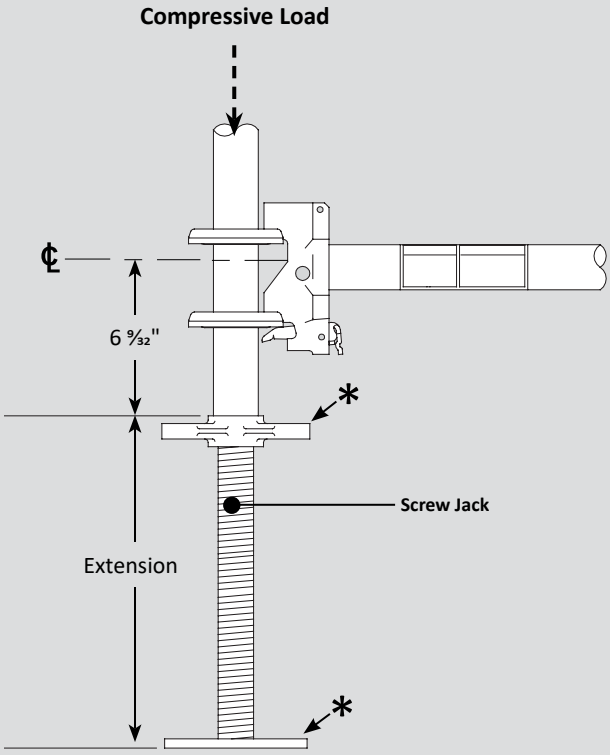
CAUTION: Do not use SB when lifting, moving or hanging scaffold assemblies.

Component Allowable Loads

Screw Jacks Vertical Compressive Load

Part No.	Jack Extension	Allowable Compressive Load
	in	lb
STSJ1	12"	8,100
STSJ2	8"	6,000

Note: See page 45 for allowable compressive load on vertical post. See page 48 for allowable loads on the STSJ1 if horizontal loads are present.

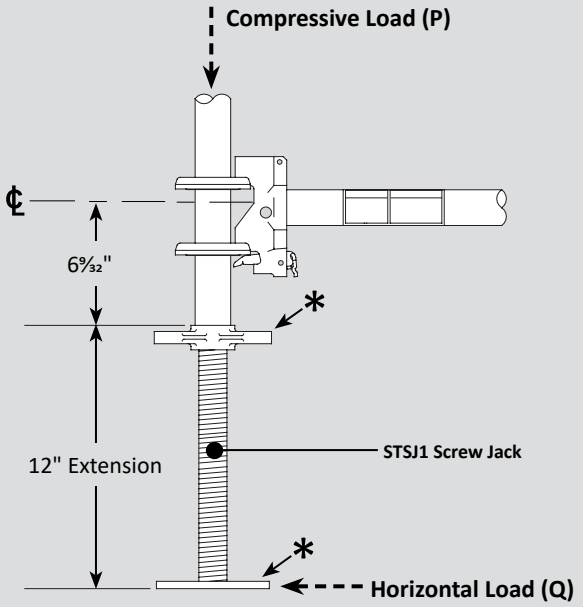


Allowable Load
(Compressive load only)

* The STSJ1 and STSJ2 have "Safway" marked into the base plate or jack handle.

Component Allowable Loads

STSJ1 Combined Vertical and Horizontal Load



Combined Allowable Load
(Compressive Load (P) and Horizontal Load (Q))

The allowable Compressive Load (P) of the STSJ1 is reduced when it is exposed to any Horizontal Load (Q). Use the chart below to determine the reduced capacity.

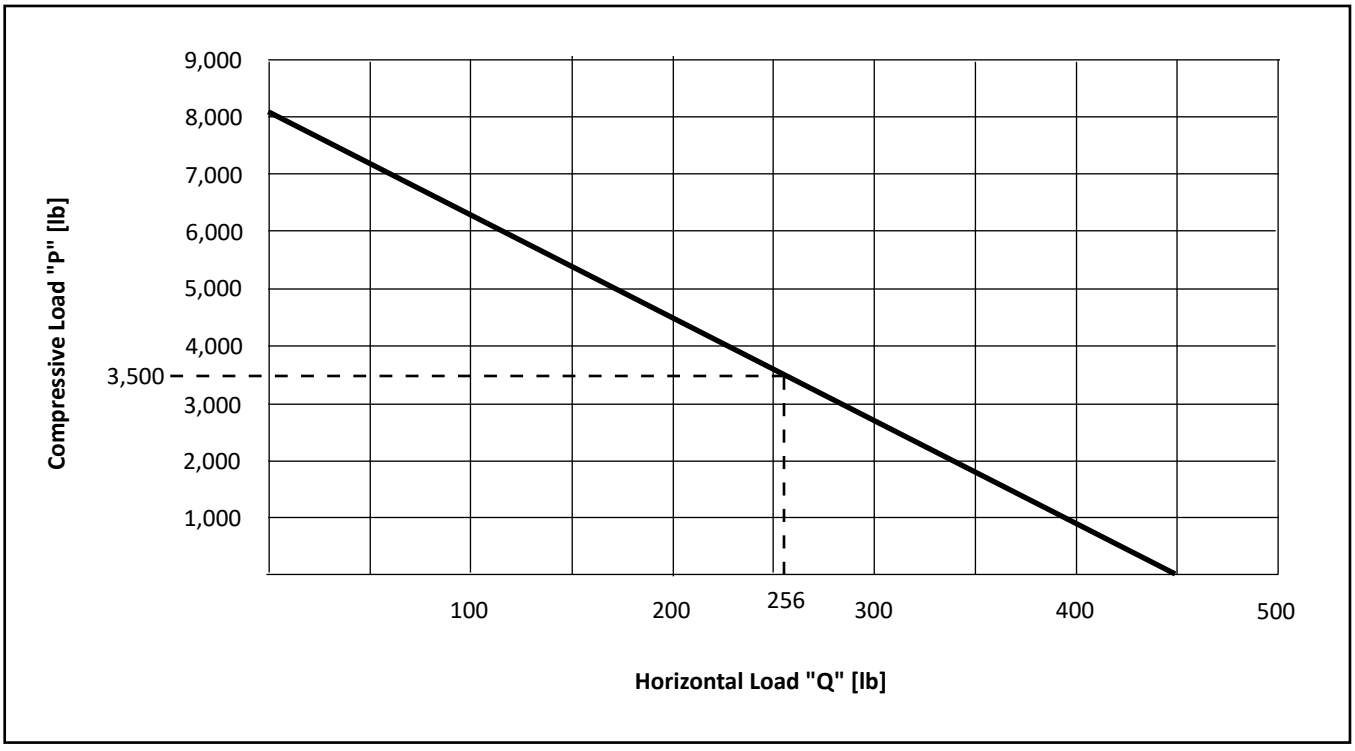
Note: Anchor hole size and locations for Screw Jacks (STSJ1) are noted on page 10.

* The STSJ1 has "Safway" marked into the base plate or jack handle.

Instructions for chart usage:

- Locate the given Horizontal Load (Q) on the horizontal axis of the chart.
- Draw a line vertically from that point until it crosses the interaction line.
- From the intersection point, draw a line horizontally until it crosses the vertical axis of the chart.
- The reduced allowable Compressive Load (P) is taken at the point where the horizonatal line crosses the vertical axis.

Example: A scaffold leg resists a 256 lb Horizontal Load (Q). Following the dotted line in the chart, the maximum allowable Compressive Load (P) would be 3,500 lb with a 12" extension.



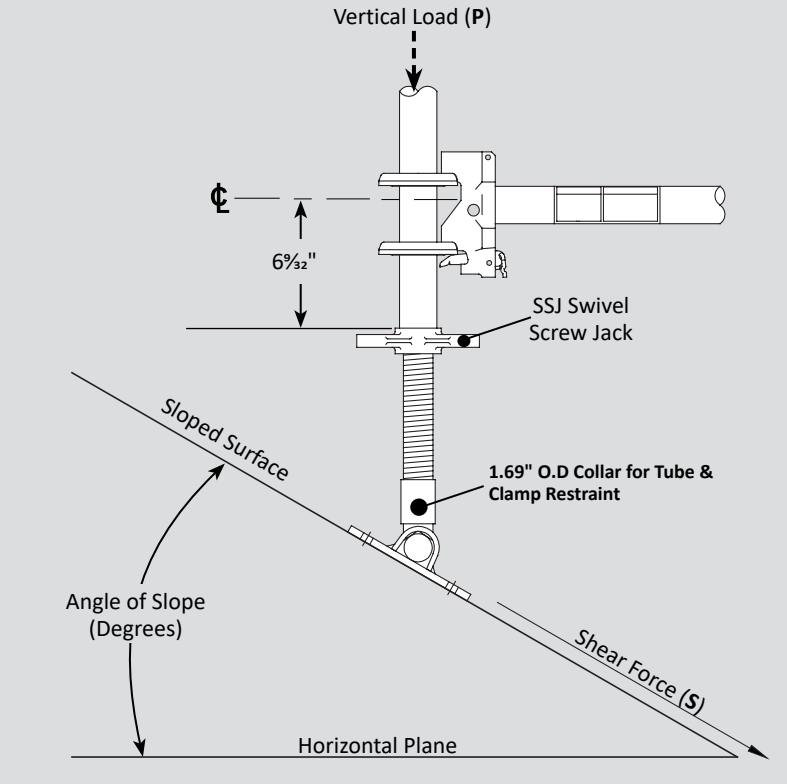
Component Allowable Loads

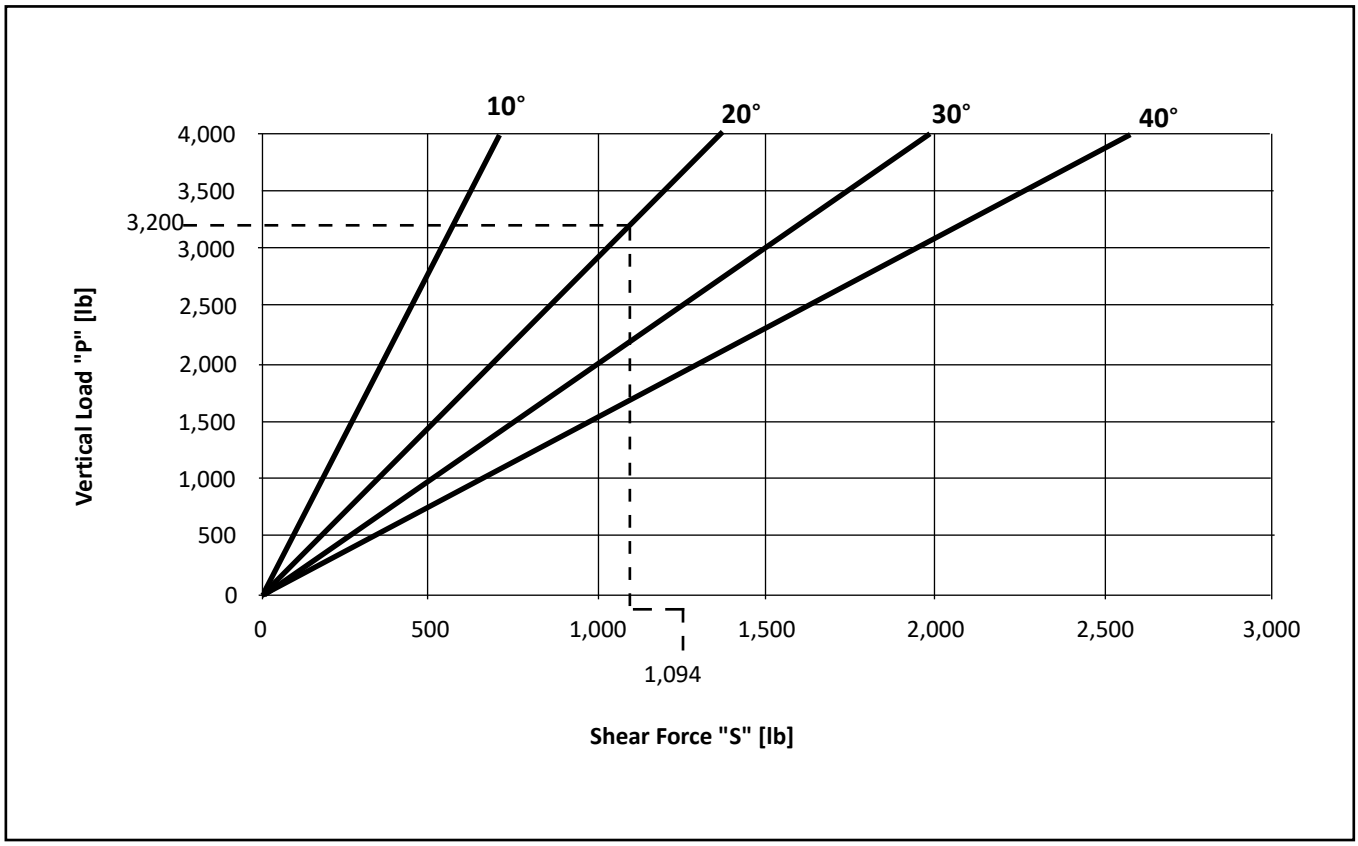
Swivel Screw Jack

Anchor or restrain the Swivel Jack (SSJ) when on sloped surface. Anchors, bolts or restraints need to resist four times the Shear Force determined from the chart. Anchor hole size and locations are noted on page 10.

Example: A scaffold vertical post supports a load (**P**) of 3,200 lb on a 20° slope. A corresponding 1,094 lb shear force is generated as shown by the dotted lines in the chart and arrows on illustration.

Note: Contact BrandSafway Engineering Department or a qualified engineer familiar with scaffold when slope exceeds 40°. See page 106 for alternate methods of restraint

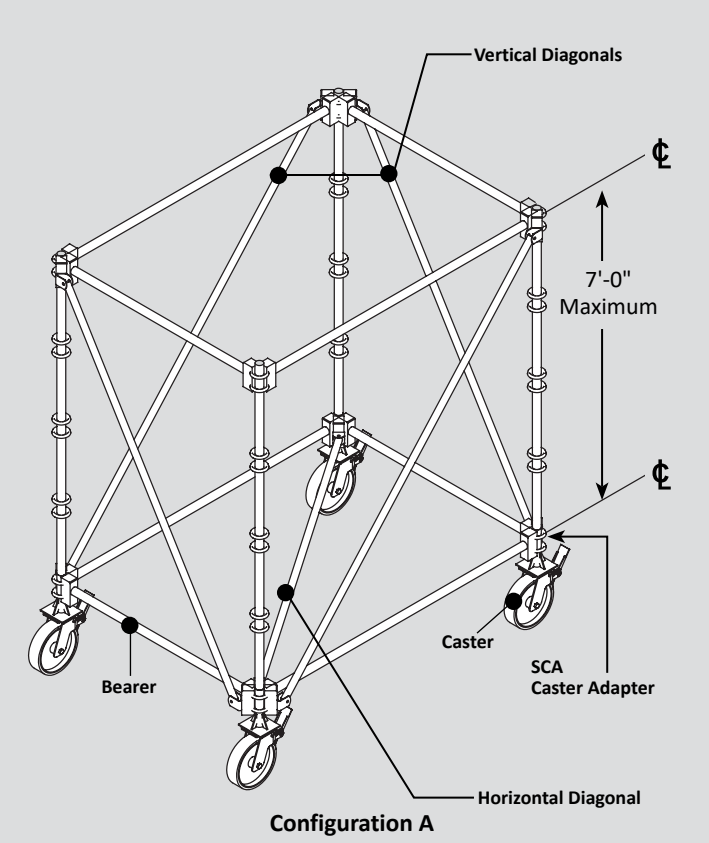




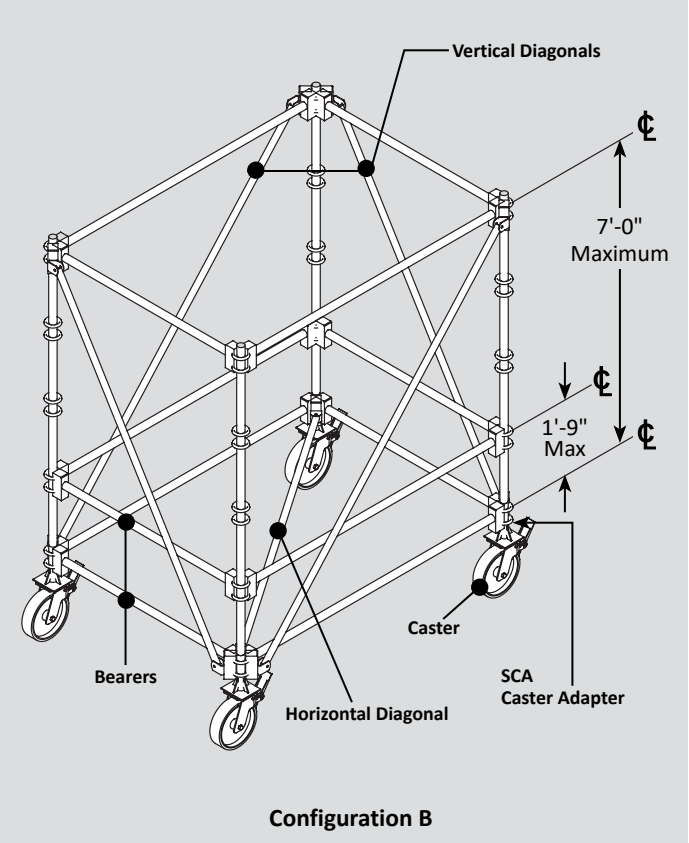
Component Allowable Loads

Casters

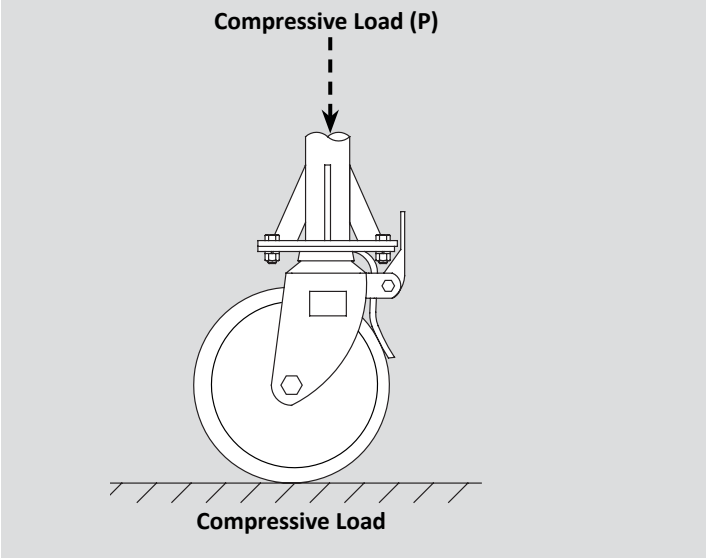
	Configuration A	Configuration B
Part No.	Allowable Rolling or Static Compressive Load lb	Allowable Rolling or Static Compressive Load lb
SCS8	900	900
SCU8	900	900
SCS12	900	1,700
SCU12	900	1,700

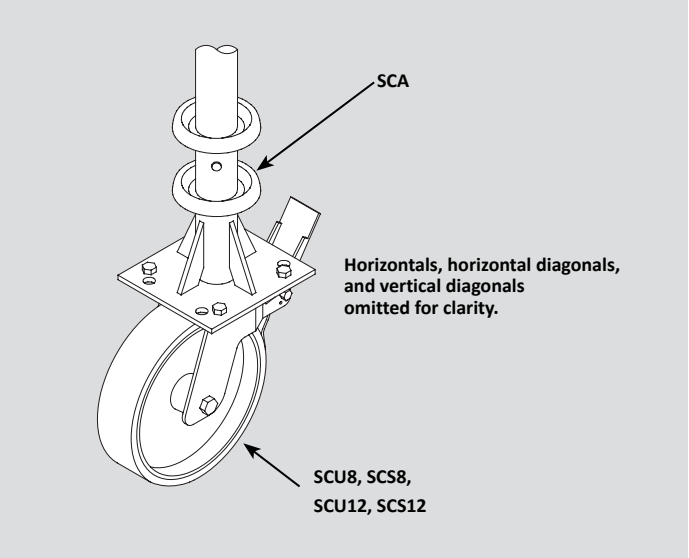


Configuration A



Configuration B



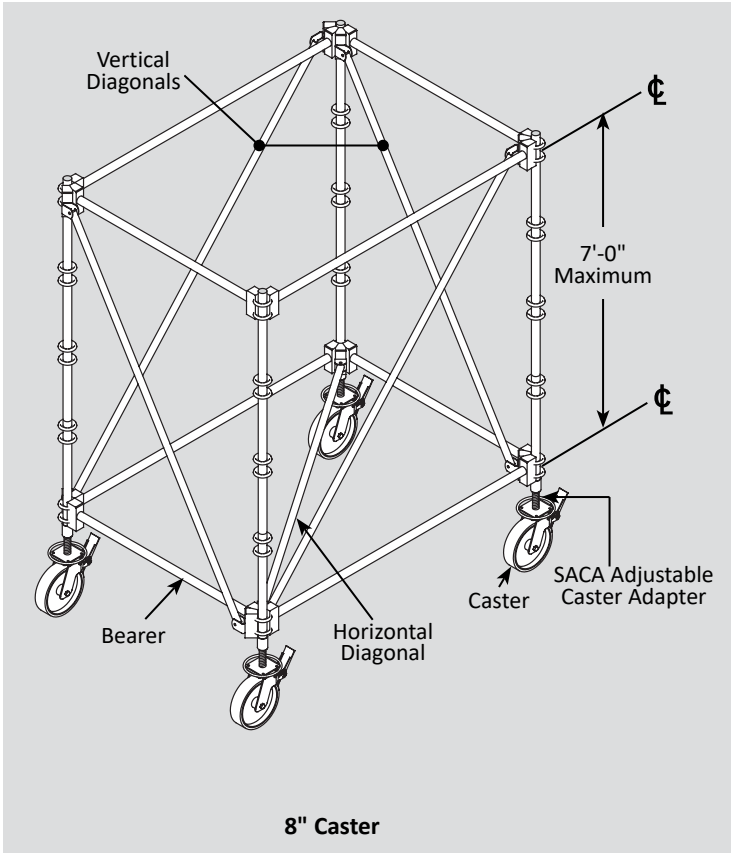


Component Allowable Loads

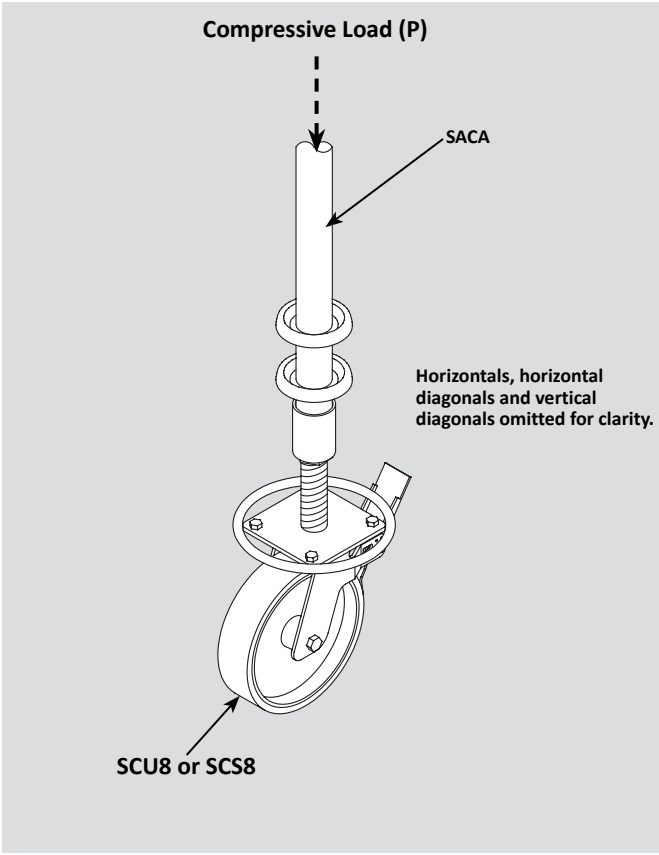
Adjustable Caster Adapter

Part No.	Allowable Rolling or Static Compressive Load lb
SCS8	900
SCU8	900

For use with 8" diameter casters only.



8" Caster



Component Allowable Loads

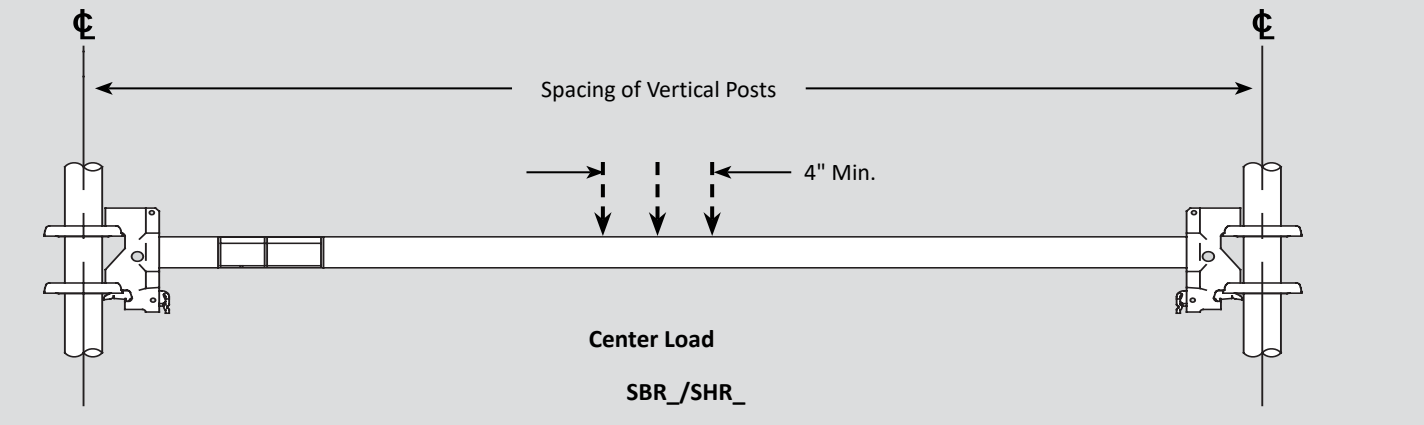
Bearers

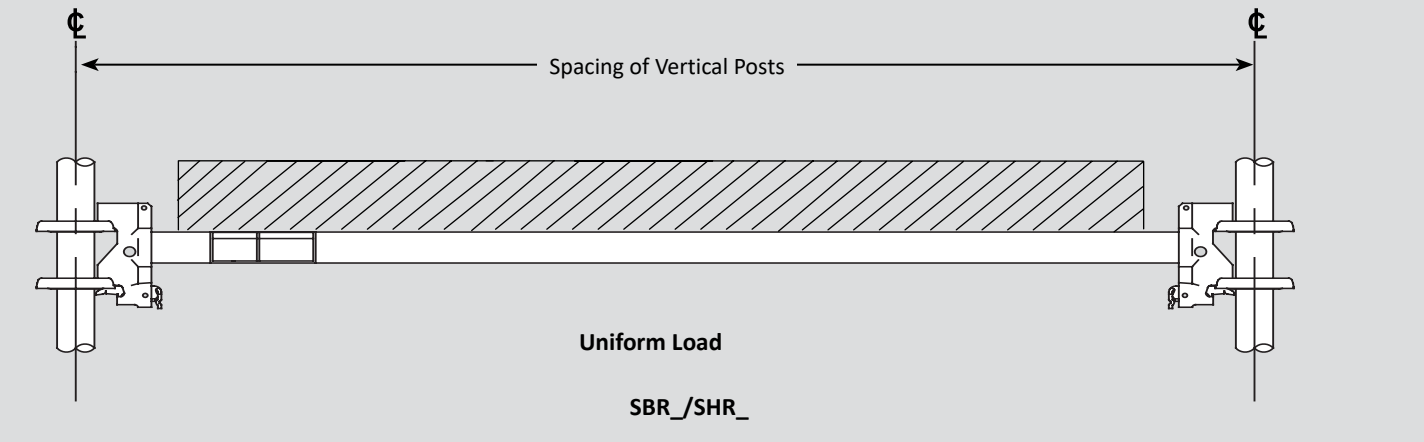
Part No.	Post Spacing	Allowable Center Load	Allowable Uniform Load	
	ft-in	lb	lb	lb/ft
SBR2	2'-0"	1,350	2,700	1,350
SBR33	2'-9"	800	1,675	610
SBR3	3'-0"	725	1,500	500
SBR42	3'-6"	725	1,575	450
SBR45	3'-9"	550	1,125	300
SBR4	4'-0"	640	1,320	330
SBR54	4'-6"	570	1,170	260
SBR5	5'-0"	500	1,050	210

Note: Best practice is to use SBR and STB members to support scaffold platforms. Contact BrandSafway Engineering for conditions not shown in table above or pages 53-58.

Runners

Part No.	Post Spacing	Allowable Center Load	Allowable Uniform Load	
	ft-in	lb	lb	lb/ft
SHR6	6'-0"	344	667	124
SHR7	7'-0"	289	562	88
SHR8	8'-0"	249	486	66
SHR9	9'-0"	218	428	51
SHR10	10'-0"	195	382	40



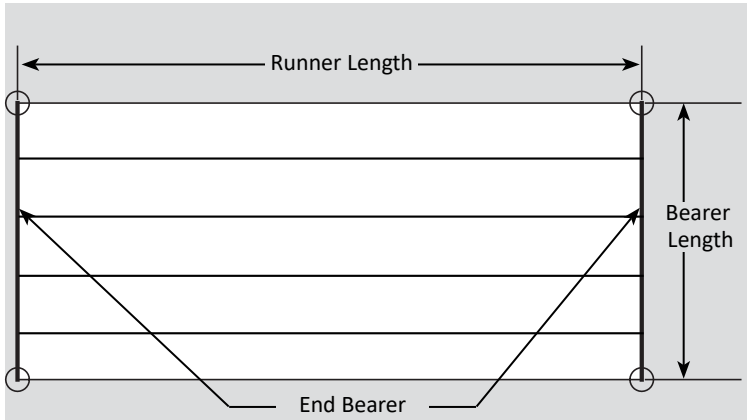


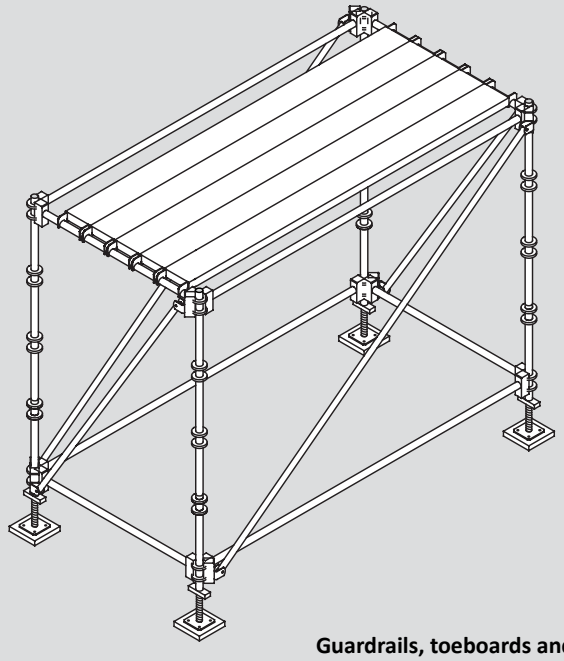
Component Allowable Loads

Single Bay Scaffold Bearers

Part No.	Bearer Length	Runner Length (in) 2'-0"	33"	3'-0"	42"	45"	4'-0"	54"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"
	ft-in	Allowable Bearer Load (lb/ft^2)												
SBR2	2'-0"	1,350	980	900	770	720	670	600	540	450	380	330	300	270
SBR33	2'-9"	610	440	400	340	320	300	270	240	200	170	150	130	120
SBR3	3'-0"	500	360	330	280	260	250	220	200	160	140	120	110	100
SBR42	3'-6"	450	320	300	250	240	220	200	180	150	120	110	100	90
SBR45	3'-9"	300	210	200	170	160	150	130	120	100	80	70	60	60
SBR4	4'-0"	330	240	220	180	170	160	140	130	110	90	80	70	60
SBR54	4'-6"	260	190	170	140	130	130	110	100	80	70	60	50	50
SBR5	5'-0"	210	150	140	120	110	100	90	80	70	60	50	40	40

Note: This chart is based on bearer strength only. Determine the maximum allowable deck load from either deck material strength,vertical post load capacity, or the chart above, whichever is less. Load values include live load and all dead loads, decking, etc.





Guardrails, toeboards and access not shown for clarity

Single Bay Scaffold

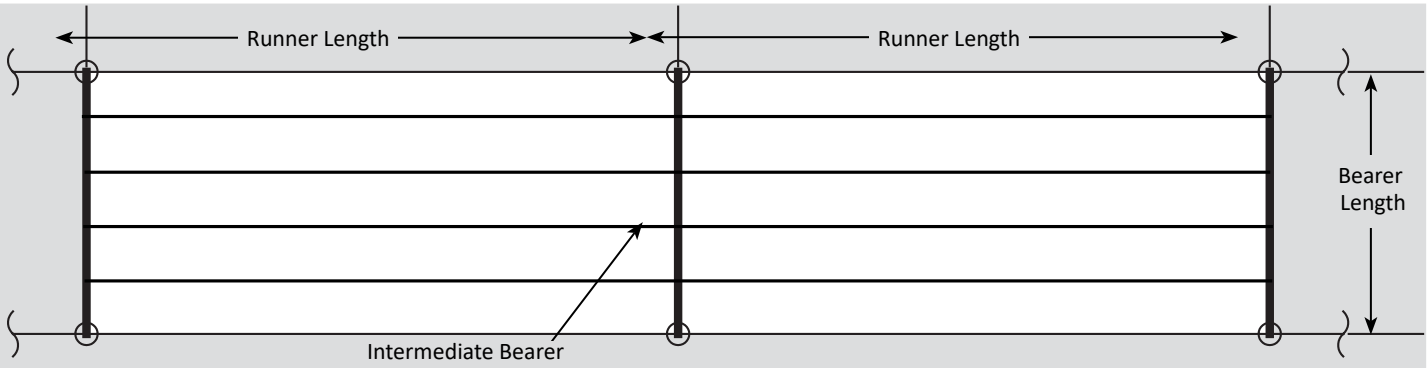
Example: A scaffold bay is constructed using SBR5s and SHR10s. The planking material typically used weighs from 3 to 6 lb/ft². Based on bearer capacity, the allowable platform load is: 40 lb/ft² (from chart above) - 5 lb/ft² (woodplank) = 35 lb/ft².

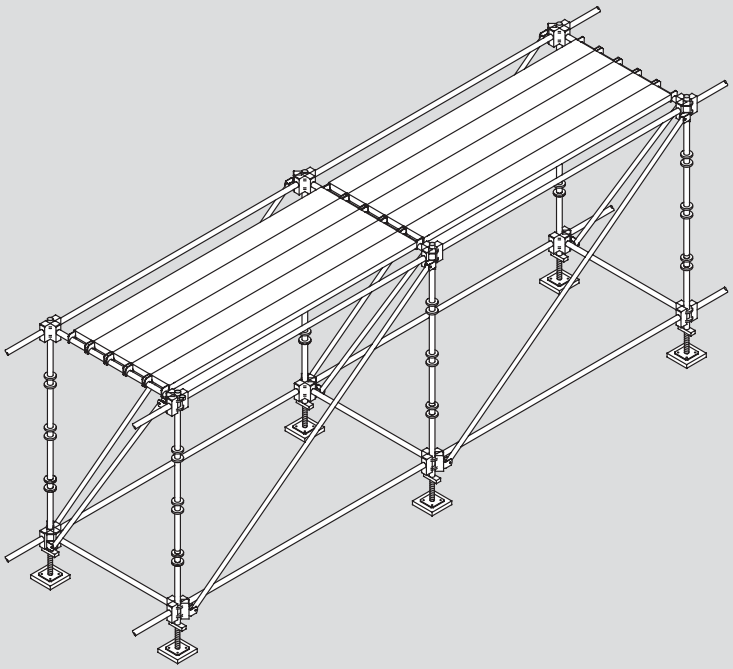
Component Allowable Loads

Multi Bay Scaffold Bearers

Part No.	Bearer Length ft-in	Runner Length (in)												
		2'-0"	33"	3'-0"	42"	45"	4'-0"	54"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"
		Allowable Bearer Load (lb/ft^2)												
SBR2	2'-0"	675	490	450	385	360	335	300	270	225	190	165	150	135
SBR33	2'-9"	305	220	200	170	160	150	135	120	100	85	75	65	60
SBR3	3'-0"	250	180	165	140	130	125	110	100	80	70	60	55	50
SBR42	3'-6"	225	160	150	125	120	110	100	90	75	60	55	50	45
SBR45	3'-9"	150	105	100	85	80	75	65	60	50	40	35	30	30
SBR4	4'-0"	165	120	110	90	85	80	70	65	55	45	40	35	30
SBR54	4'-6"	130	95	85	70	65	65	55	50	40	35	30	25	25
SBR5	5'-0"	105	75	70	60	55	50	45	40	35	30	25	20	20

Note: This chart is based on bearer strength only. Determine the maximum allowable deck load from either deck material strength, vertical post load capacity, or the chart above, whichever is less. Load values include live load and all dead loads, decking, etc.





Mulit-Bay Scaffold

Guardrails, toeboards and access not shown for clarity

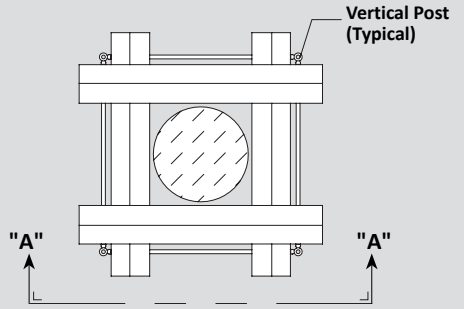
See example calculation on page 53.

Component Allowable Loads

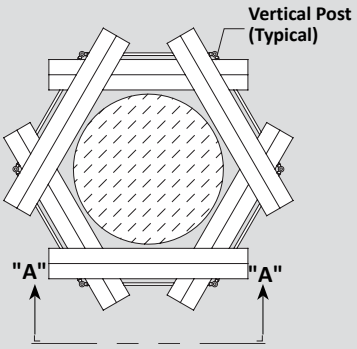
Horizontal Runners - Single Post Circular Scaffold Allowable Loads

Number of Vertical Posts in Tower	Loading Distance (h) in	Allowable Uniform Load on Distance h	
		lb	lb/ft
4	19"	585	370
6	22"	500	270
8	27"	400	180

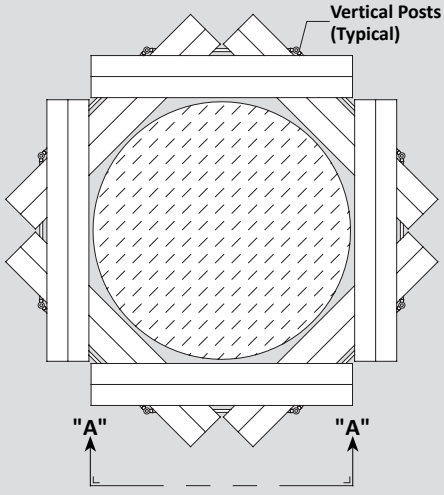
Note: This chart is based on runner strength only. Determine the maximum allowable deck load from either platform material strength, vertical post load capacity or the chart above, whichever is less.



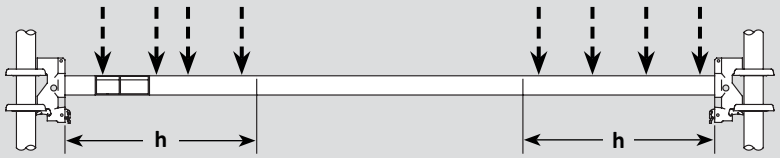
Four Posts



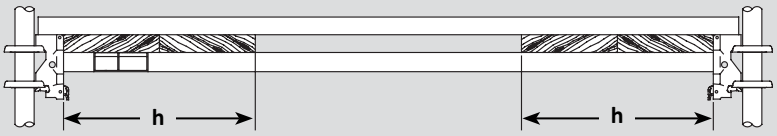
Six Posts



Eight Posts



Loading Diagram for Section A-A (Typical)



Section A-A (Typical)

Platforms may rest on runners if platform area is located close to the posts, does not exceed dimension "**h**" and the allowable load table above.

Note: Dimension "h" is based on two 2" x 10" lumber scaffold planks. If wider platforms are required, contact BrandSafway Engineering or a qualified engineer familiar with scaffold design prior to design finalization.

Component Allowable Loads

Truss Bearers Styles I and II

Part No.	Style	Post Spacing ft-in	Allowable Center Load lb	Allowable Uniform Load lb	Allowable Uniform Load lb/ft
STB6	I	6'-0"	1,875	3,750	625
STB7	I	7'-0"	1,650	3,300	470
STB8	II	8'-0"	2,200	4,400	550
STB9	II	9'-0"	2,200	4,400	488

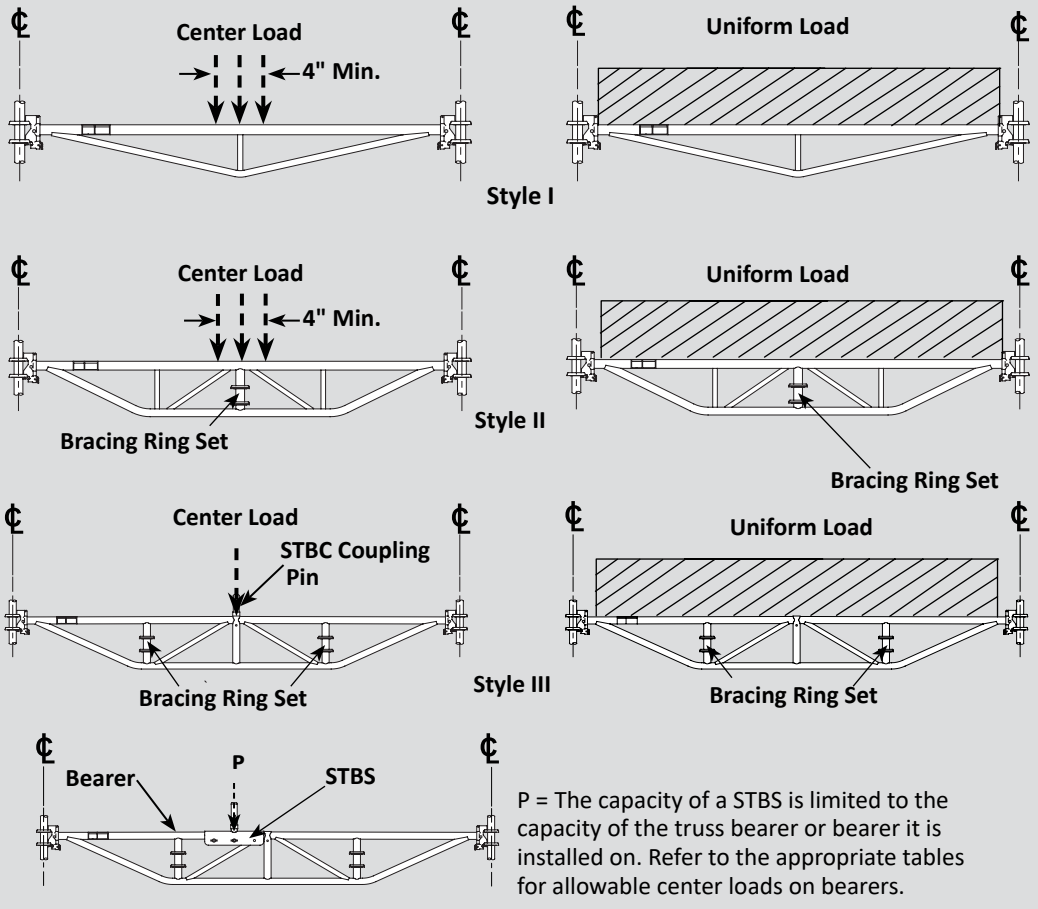
Note: Brace Style II Truss Bearer to adjacent Truss Bearers at center ring set when supporting vertical loads.

Truss Bearers Style III

Part No.	Post Spacing ft-in	Allowable Center Load lb	Allowable Uniform Load lb	Allowable Uniform Load lb/ft
STB10	10'-0"	2,200	4,400	440
STB12	12'-0"	2,200	4,400	367
STB14	14'-0"	1,800	3,600	257
STB16	16'-0"	1,800	3,600	225
STB18	18'-0"	1,800	3,600	200

Note: Brace Style III Truss Bearer to adjacent Truss Bearers at both bracing ring sets when supporting vertical loads.

Contact BrandSafway Engineering for other bracing configurations.



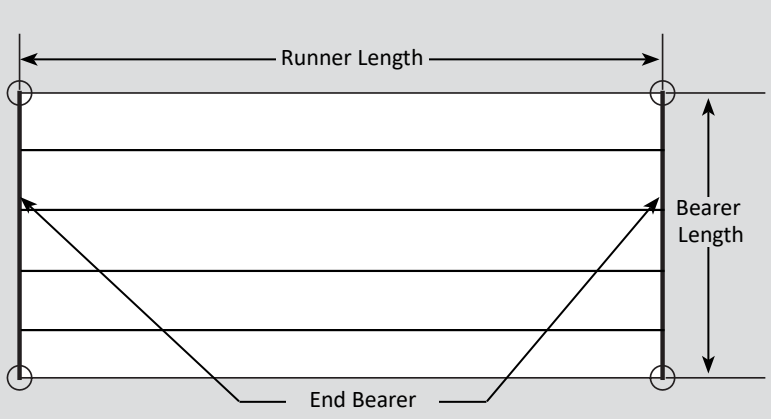
P = The capacity of a STBS is limited to the capacity of the truss bearer or bearer it is installed on. Refer to the appropriate tables for allowable center loads on bearers.

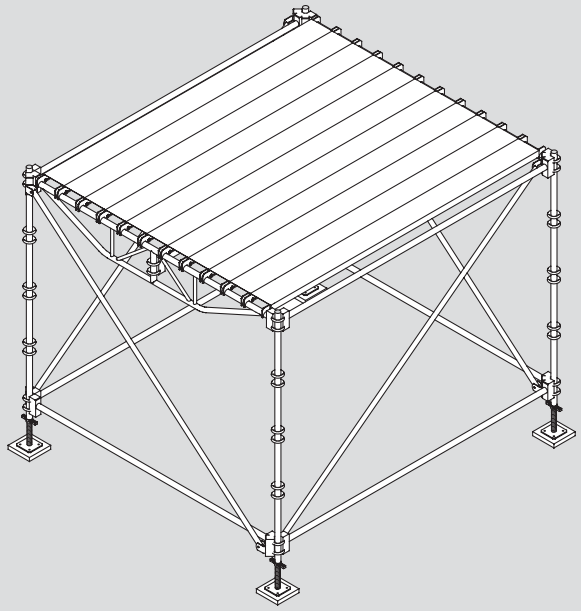
Component Allowable Loads

Single Bay Scaffold Truss Bearers

Part No.	Bearer Length ft-in	Style	Runner Length (in) 2'-0"	33"	3'-0"	42"	45"	4'-0"	54"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"
			Allowable Bearer Load (lb/ft^2)												
STB6	6'-0"	I	620	450	410	350	330	310	270	250	200	170	150	130	120
STB7	7'-0"	I	470	340	310	270	250	230	210	180	150	130	110	100	90
STB8	8'-0"	II	550	400	360	310	290	270	240	220	180	150	130	120	110
STB9	9'-0"	II	480	350	320	280	260	240	210	190	160	140	120	100	90
STB10	10'-0"	III	440	320	290	250	230	220	190	170	140	120	110	90	80
STB12	12'-0"	III	360	260	240	210	190	180	160	140	120	100	90	80	70
STB14	14'-0"	III	250	180	170	140	130	120	110	100	80	70	60	50	50
STB16	16'-0"	III	220	160	150	120	120	110	100	90	70	60	50	50	40
STB18	18'-0"	III	200	140	130	110	100	100	80	80	60	50	50	40	40

Note: This chart is based on truss bearer strength only. Determine the maximum allowable deck load from either deck material strength, vertical post load capacity, or the chart above, whichever is less. Load values include live load and all dead loads, decking, etc.





Single Bay Scaffold

Guardrails, toeboards and access not shown for clarity

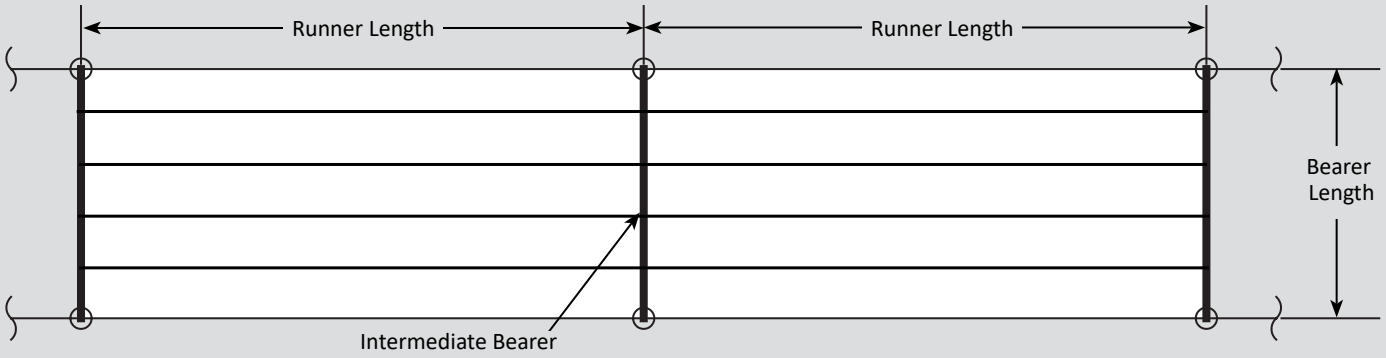
See example calculation on page 53.

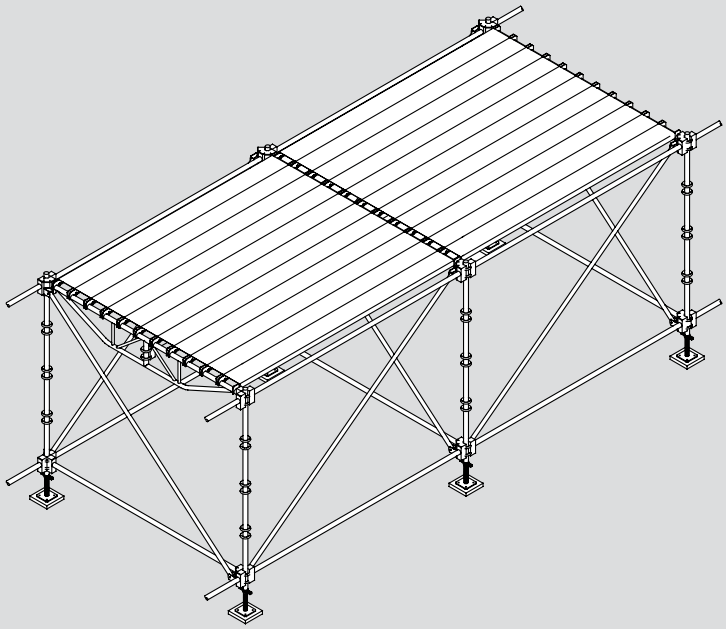
Component Allowable Loads

Multi-Bay Scaffold Truss Bearers

Part No.	Bearer Length ft-in	Style	Runner Length (in) 2'-0"	33"	3'-0"	42"	45"	4'-0"	54"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"
			Allowable Bearer Load (lb/ft^2)												
STB6	6'-0"	I	310	225	205	175	165	155	135	125	100	85	75	65	60
STB7	7'-0"	I	235	170	155	135	125	115	105	90	75	65	55	50	45
STB8	8'-0"	II	275	200	180	155	145	135	120	110	90	75	65	60	55
STB9	9'-0"	II	240	175	160	140	130	120	105	95	80	70	60	50	45
STB10	10'-0"	III	220	160	145	125	115	110	95	85	70	60	55	45	40
STB12	12'-0"	III	180	130	120	105	95	90	80	70	60	50	45	40	35
STB14	14'-0"	III	125	90	85	70	65	60	55	50	40	35	30	25	25
STB16	16'-0"	III	110	80	75	60	60	55	50	45	35	30	25	25	20
STB18	18'-0"	III	100	70	65	55	50	50	40	40	30	25	25	20	20

Note: This chart is based on truss bearer strength only. Determine the maximum allowable deck load from either deck material strength, vertical post load capacity, or the chart above, whichever is less. Load values include live load and all dead loads, decking, etc.





Multi-Bay Scaffold

See example calculation on page 53.

Component Allowable Loads

Stair Units

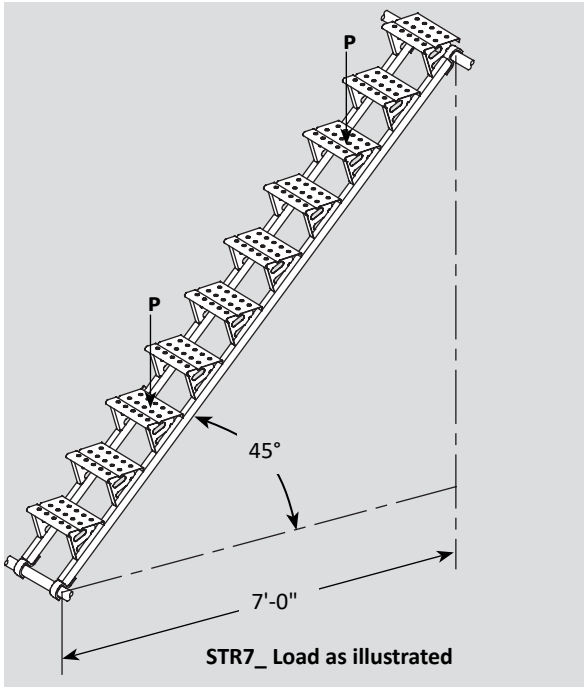
Part No.	Allowable Concentrated Load P (at two places)
	lb
STR7	350
STR7A	350
STR7M42	350

Adjustable Beam Clamp

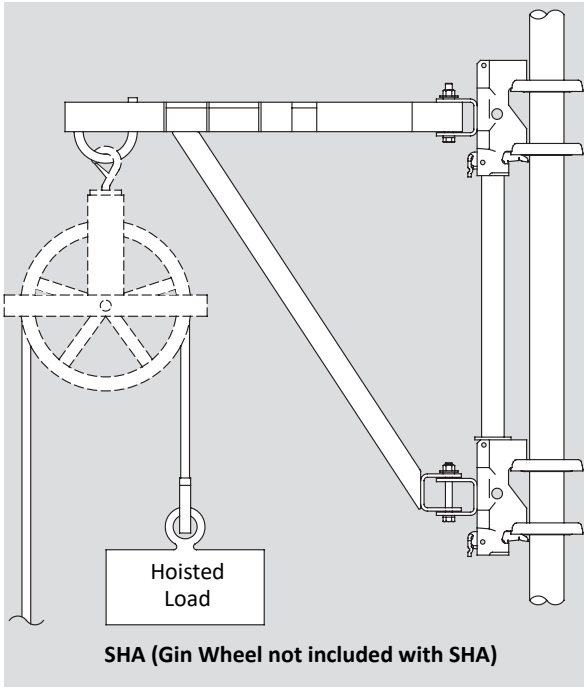
Part No.	Allowable Suspension Load P
	lb
BCA	4,000

Hoist Arm

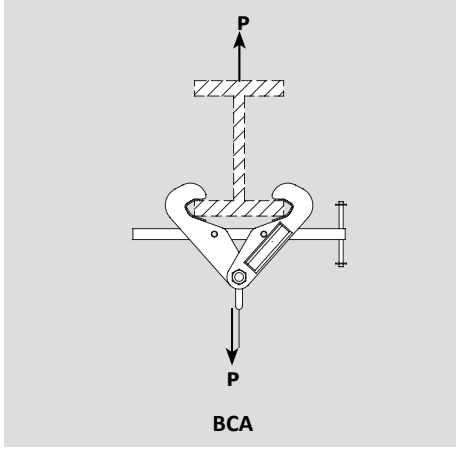
Part No.	Maximum Hoisted Load
	lb
SHA	100



STR7_ Load as illustrated



SHA (Gin Wheel not included with SHA)

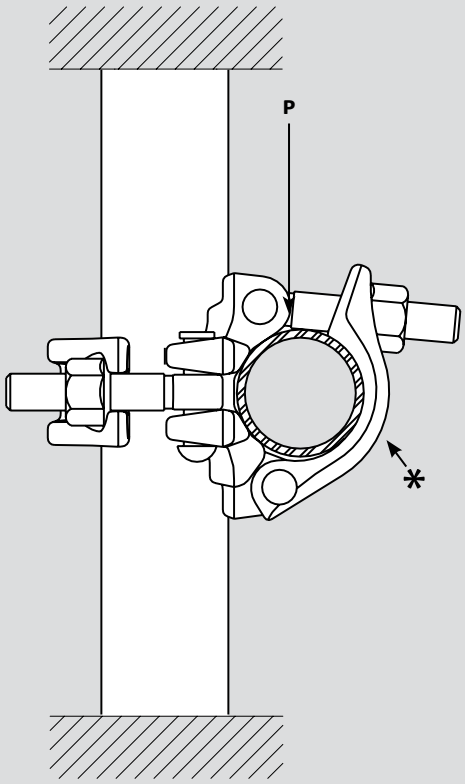


BCA

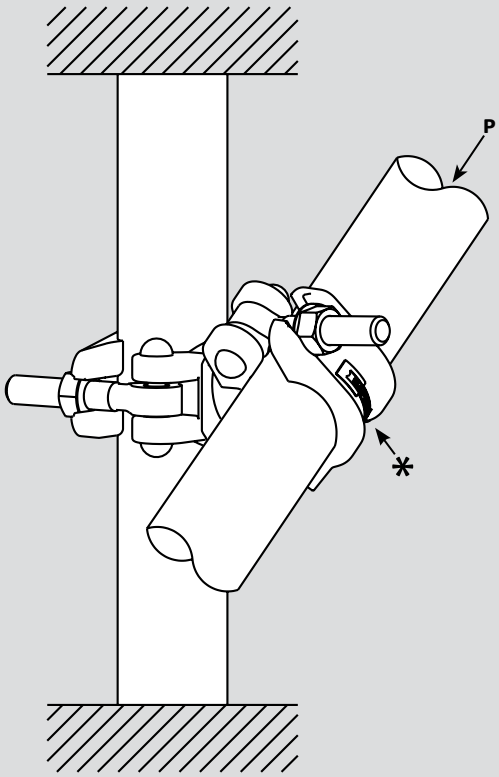
Component Allowable Loads

Dual Purpose Forged Clamps

Part No.	Tube	Finish	Bolt Torque ft-lb	Allowable Load (P) lb	Use
CRA19	S7	Hot Dip Galvanized	45	925	Primary structural load bearing application
	S6	Pre-Galvanized		825	
	S5	Powder Paint		750	
CSA19	S7	Hot Dip Galvanized	45	925	Secondary stability and sway load applications.
	S6	Pre-Galvanized		825	
	S5	Powder Paint		750	



CRA19



CSA19

Best Practices: Use CRA19 (right angle) clamps for supporting primary (scaffold platform) loads such as planked bearers, knee bracing of cantilevered scaffold bays, hanging legs and knee bracing of runners used as bearers. It is also recommended to use CRA19 clamps for all connections where tubes intersect at right angles such as runners attached to scaffold legs.

Use CSA19 (swivel angle) clamps for stability and sway bracing where secondary loads only are anticipated, such as sway loads or stiffening of vertical bays. CSA19 clamps are not recommended for use in knee bracing that supports primary loads.

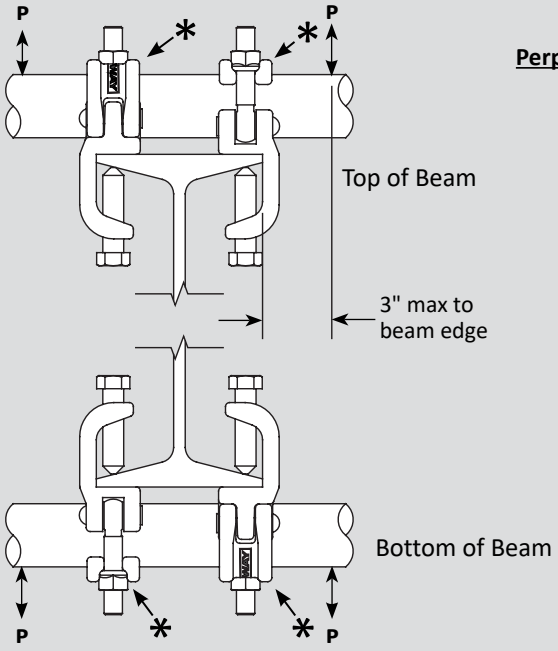
Consult BrandSafway Engineering or a qualified engineer familliar with scaffold design for other situations.

* The CRA19 and CSA19 have "Safway" marked on the clamp cap.

Component Allowable Loads

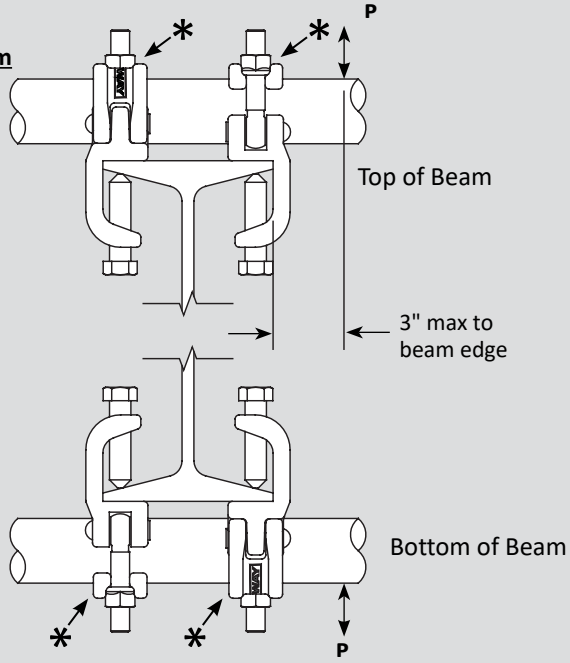
Beam Clamp Allowable Loads

Loads shown are based on all bolts tightened to approximately 45 ft-lb on tapered flange beams. Contact BrandSafway Engineering for capacities relating to specific applications.



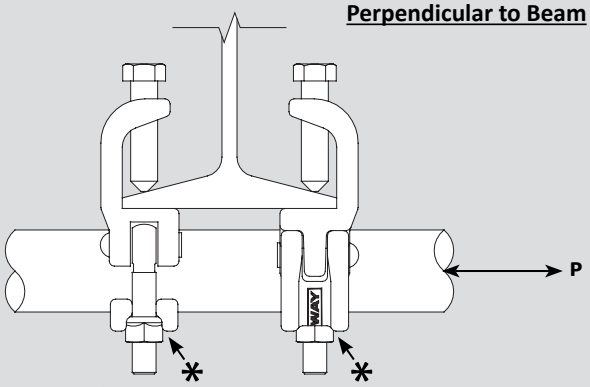
P = 1,125 lb each side

Force on Tube Perpendicular to Beam



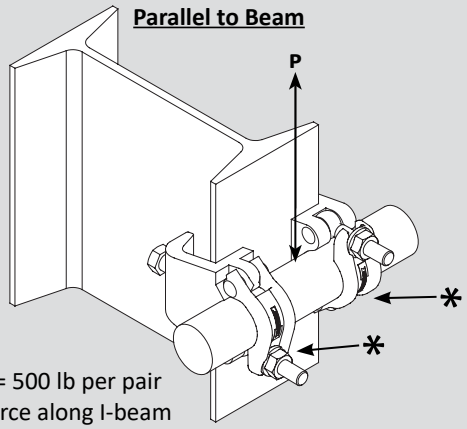
P = 1,125 lb when load is on one side only

Axial Tube Force Perpendicular to Beam



P = 800 lb per pair
Max allowable pull/push axial force on tube

Force on Tube Parallel to Beam



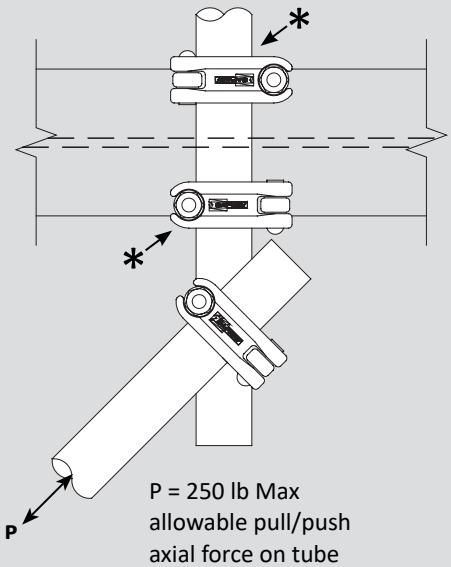
P = 500 lb per pair
Force along I-beam

* The CRA2B has "Safway" marked on the clamp cap.

Component Allowable Loads

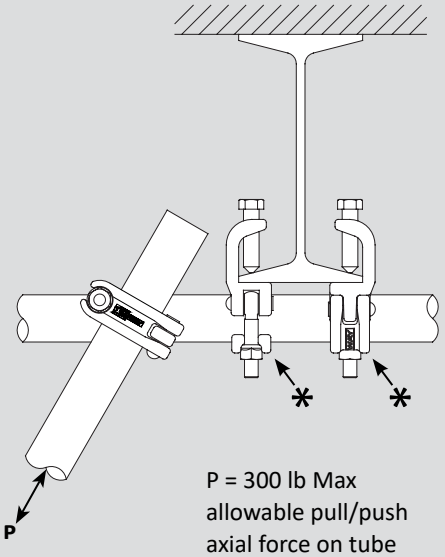
Beam Clamp Allowable Loads

Loads shown are based on all bolts tightened to approximately 45 ft-lb on tapered flange beams. Contact BrandSafway Engineering for capacities relating to specific applications.

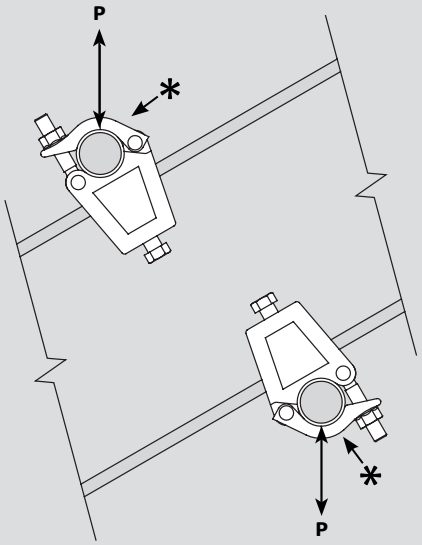


P = 250 lb Max allowable pull/push axial force on tube

Force at Angle to Beam



P = 300 lb Max allowable pull/push axial force on tube



P = 500 lb Max allowable pull/push force on tube

* The CRA2B has "Safway" marked on the clamp cap.

Component Allowable Loads

Side Brackets

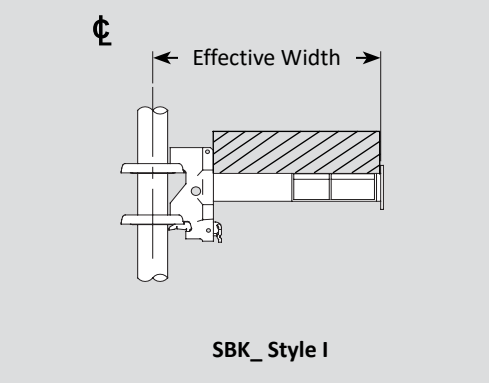
Part No.	Style	Effective Width ft-in	Allowable Uniform Load lb
SBK06	I	0'-5½"	250
SBK1	I	1'-2½"	250
SBK2	II	2'-0"	500
SBK33	II	2'-9"	500
SBK3	II	3'-0"	500

Note: This chart is based on side bracket strength only. Determine the maximum allowable platform load from either platform material strength, leg load capacity or the chart above, whichever is less. Side brackets intended to support workers only. Contact BrandSafway Engineering for capacities relating to specific applications. Coupling Pin (SCP) is provided with Style II side brackets for guard rail post installation only.

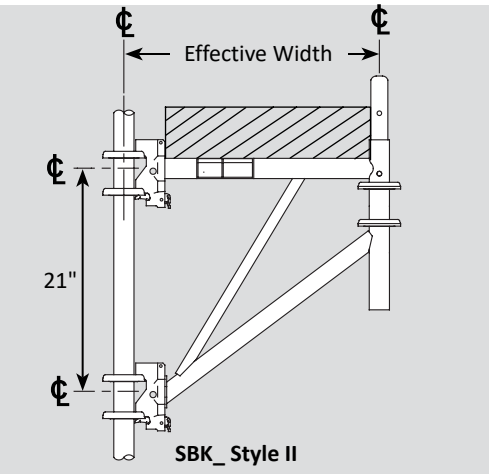
Knee-out Brackets

Part No.	Effective Width ft-in	Allowable Concentrated Load lb
SKO3	3'-0"	875
SKO45	3'-9"	700

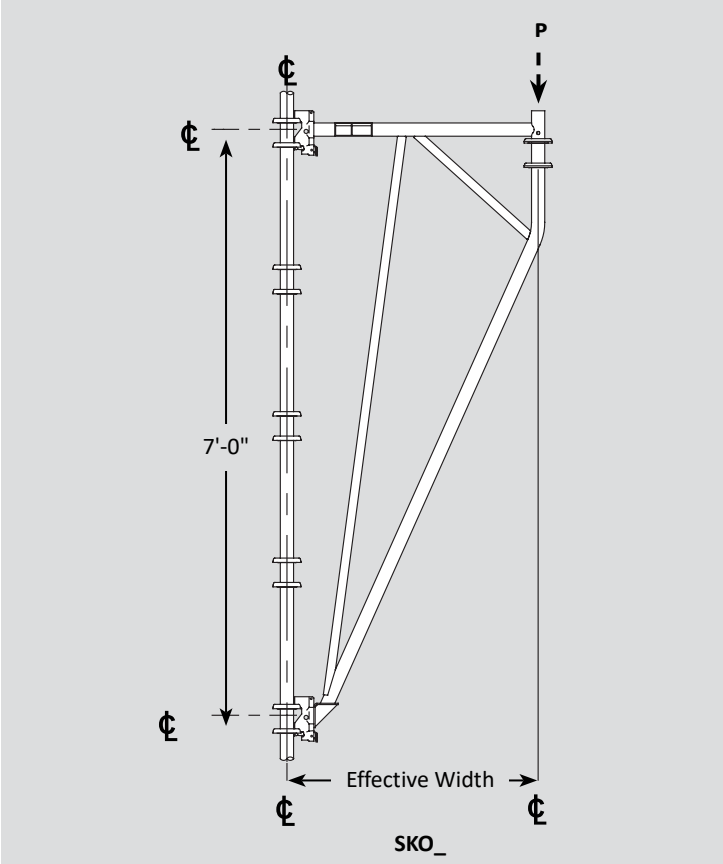
Note: Install Bearers/Runners at same increments as knee-out(s) to provide bracing to the vertical post. Scaffold to be properly tied and/or of adequate size to prevent it from overturning. See page 105 for tying scaffolds and additional load information when utilizing knee-outs.



SBK_ Style I



SBK_ Style II



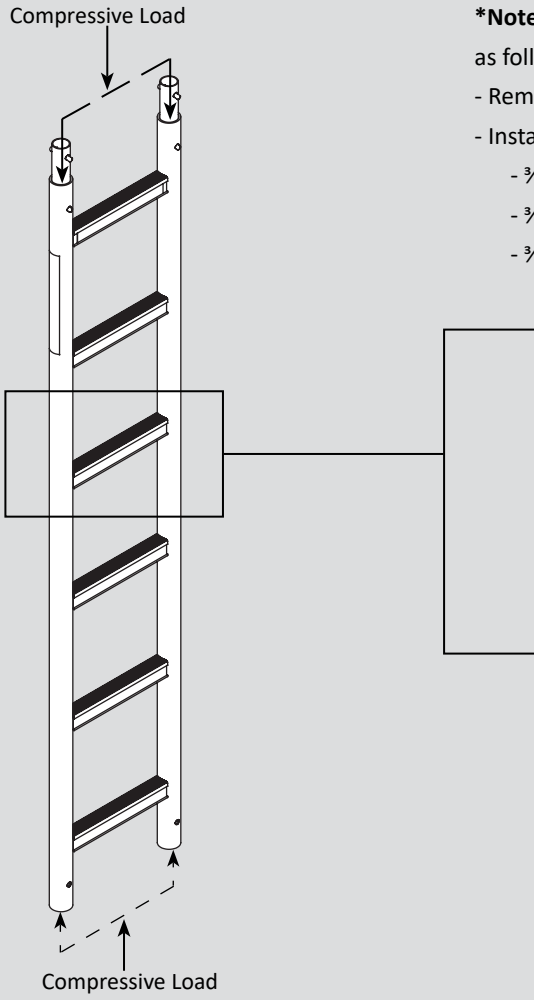
SKO_

Component Allowable Loads

Pipe Access Ladders

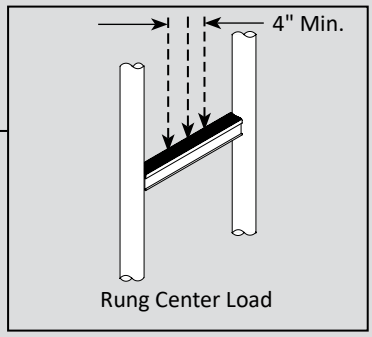
Part No.	Allowable Compressive or Tensile Load* lb	Allowable Rung Center Load lb
SALCS212	700	350
SALCS312	700	350
SALCS612	700	350
SALCS218	700	350
SALCS318	700	350
SALCS618	700	350

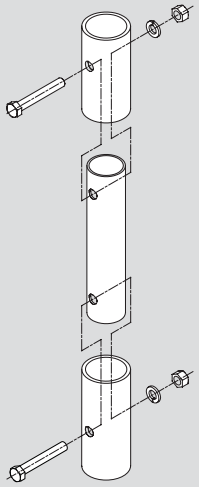
Note: Allowable compressive load is based on ladder assembly properly braced per page 91.



***Note:** If Ladders are suspended, modify the coupling as follows:

- Remove snap buttons supplied with ladder.
- Install the following hardware:
  - ⅜" - 16 UNC x 2½" long grade 5 hex bolt
  - ⅜" lock washer
  - ⅜" - 16 UNC hex nut





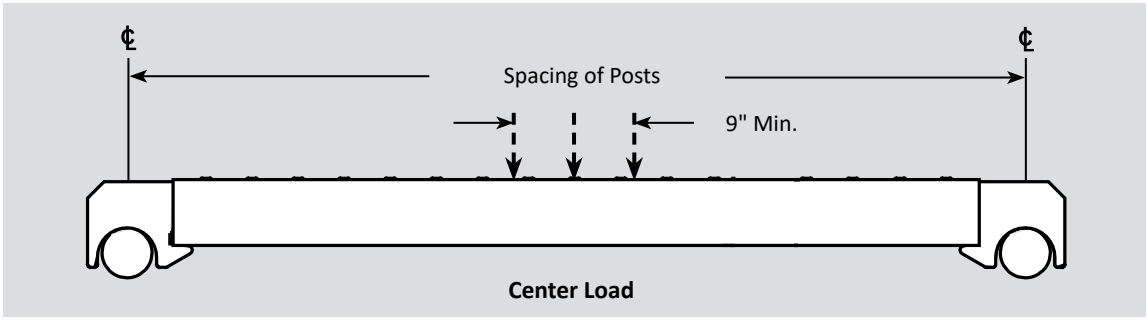
Suspension Coupling Pin Detail

Component Allowable Loads

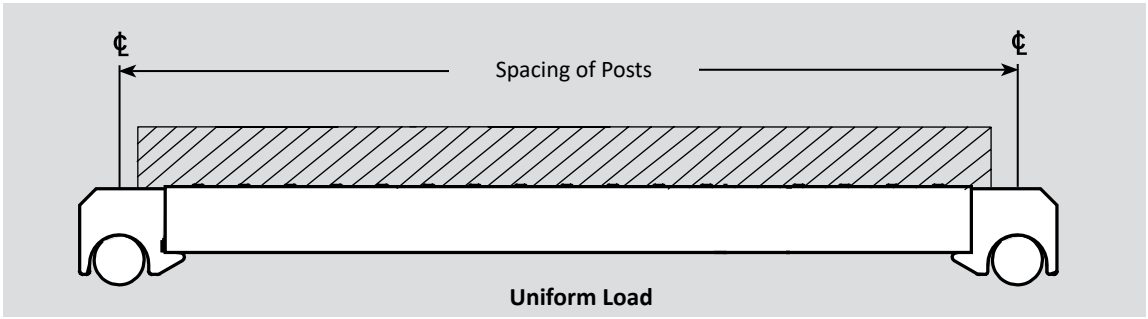
Steel Planks

Type of Plank	Perforated SSP*, SSPB, FSPH, SSPH			Slotted SSP		
Effective Length	Allowable Center Load	Allowable Uniform Load	Allowable Distributed Load	Allowable Center Load	Allowable Uniform Load	Allowable Distributed Load
ft-in	lb	lb/ft	lb/ft^2	lb	lb/ft	lb/ft^2
2’-0"	770	472	630	412	171	227
3’-0"	770	472	630	412	171	227
3’-6”	625	386	515	347	147	196
3’-9”	580	360	480	328	137	182
4’-0"	550	311	415	298	128	170
4’-6”	495	255	340	261	116	154
5’-0"	450	213	285	233	93	124
6’-0"	380	150	200	338	113	150
7’-0"	325	105	140	302	86	115
8’-0"	290	82	110	240	60	80
9’-0"	260	60	80	220	49	65
10’-0"	250	49	65	206	41	55

*** Loads shown for SSP's include 6" wide and 9" wide planks.**



Center Load



Uniform Load

Component Allowable Loads

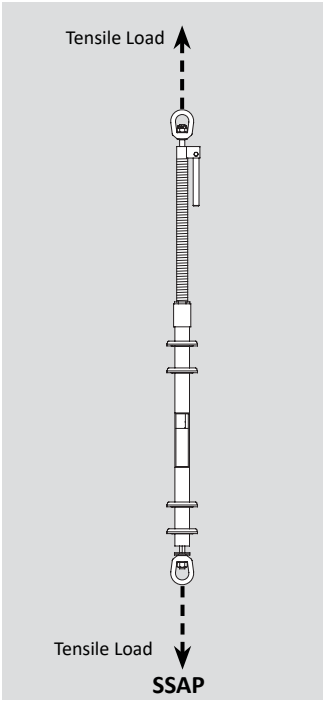
Suspended Adjustable Post

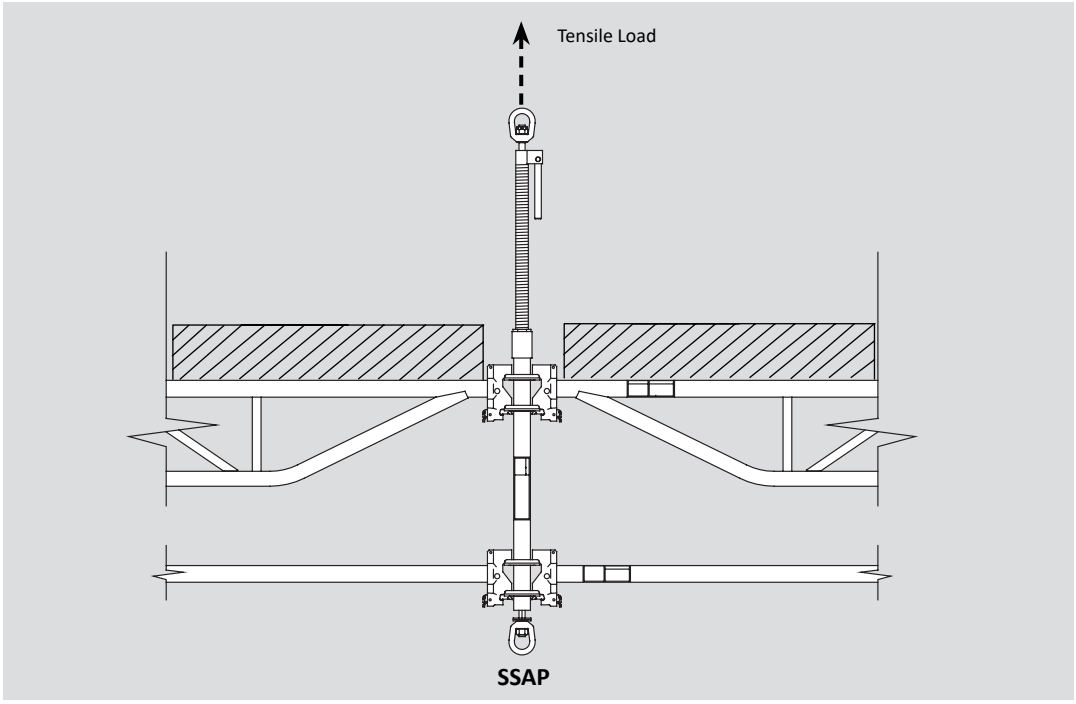
Part No.	Allowable Tensile Load lb
SSAP	4,000

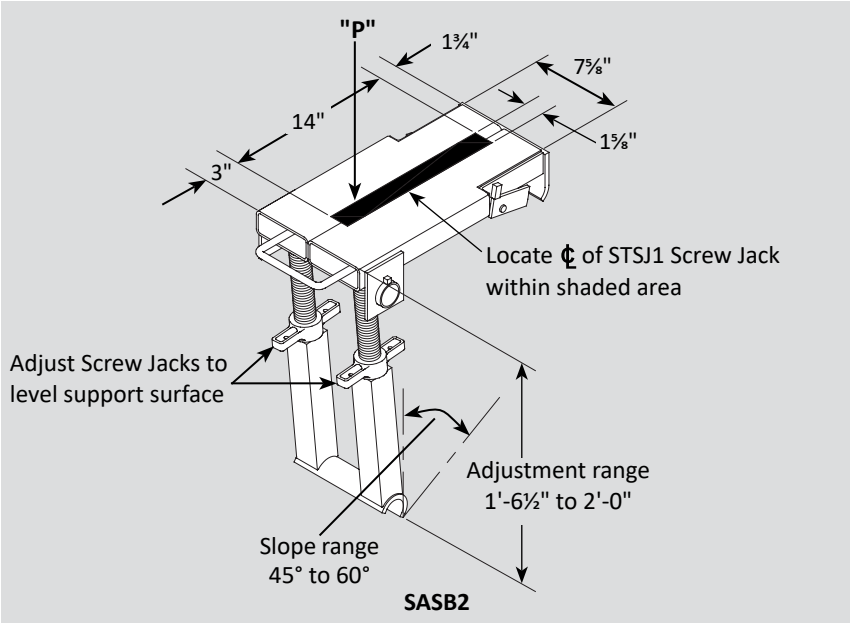
Support Brackets

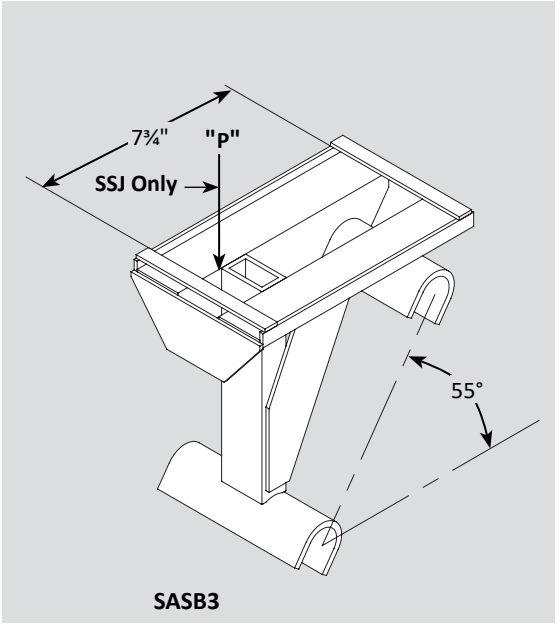
Part No.	Allowable Vertical Load P lb
SASB2	4,000
SASB3	4,000

Note: Use support brackets only with SBF support frames.









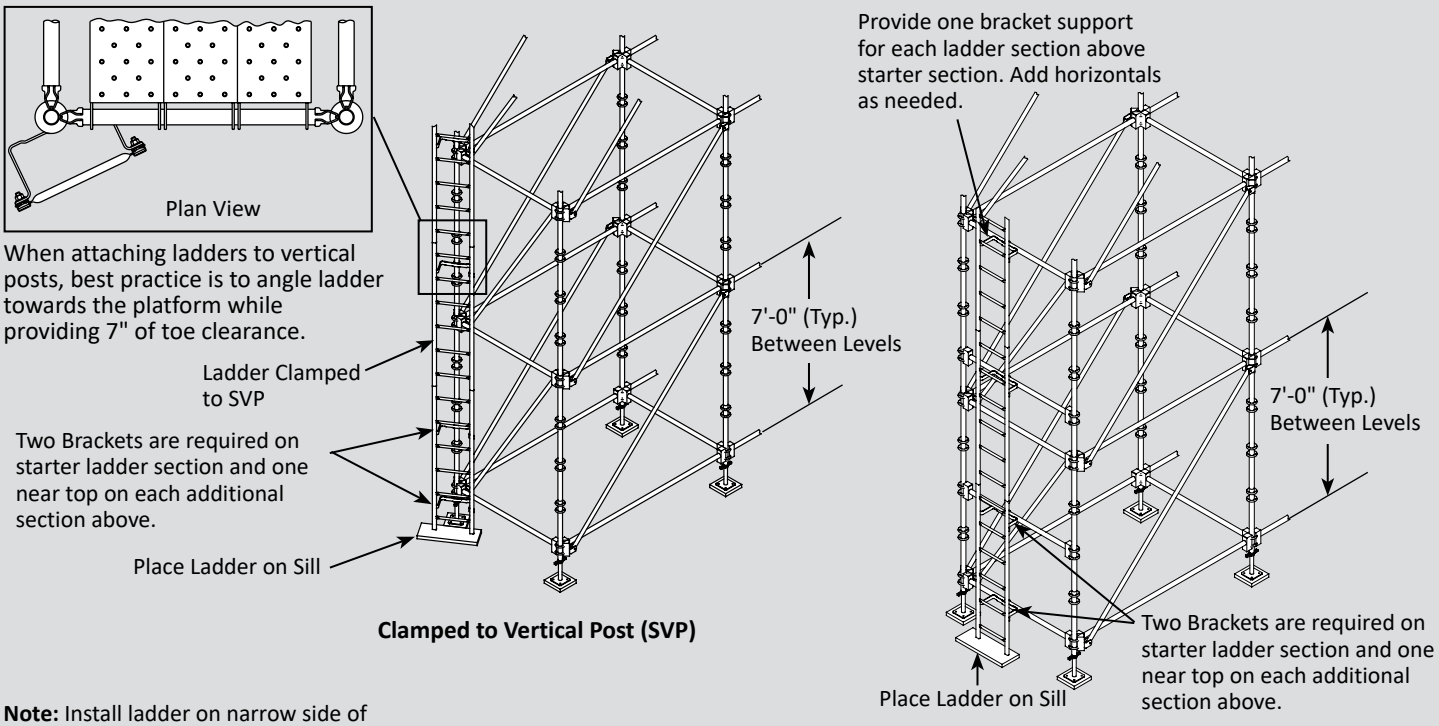
Assembly Details

Section 3

This chapter contains illustrations of various scaffold assembly details. The illustrations are provided as information to describe component fit and dimensional limitations. This chapter is not intended to be used as a complete guide to erect BrandSafway Systems™ Scaffolds.

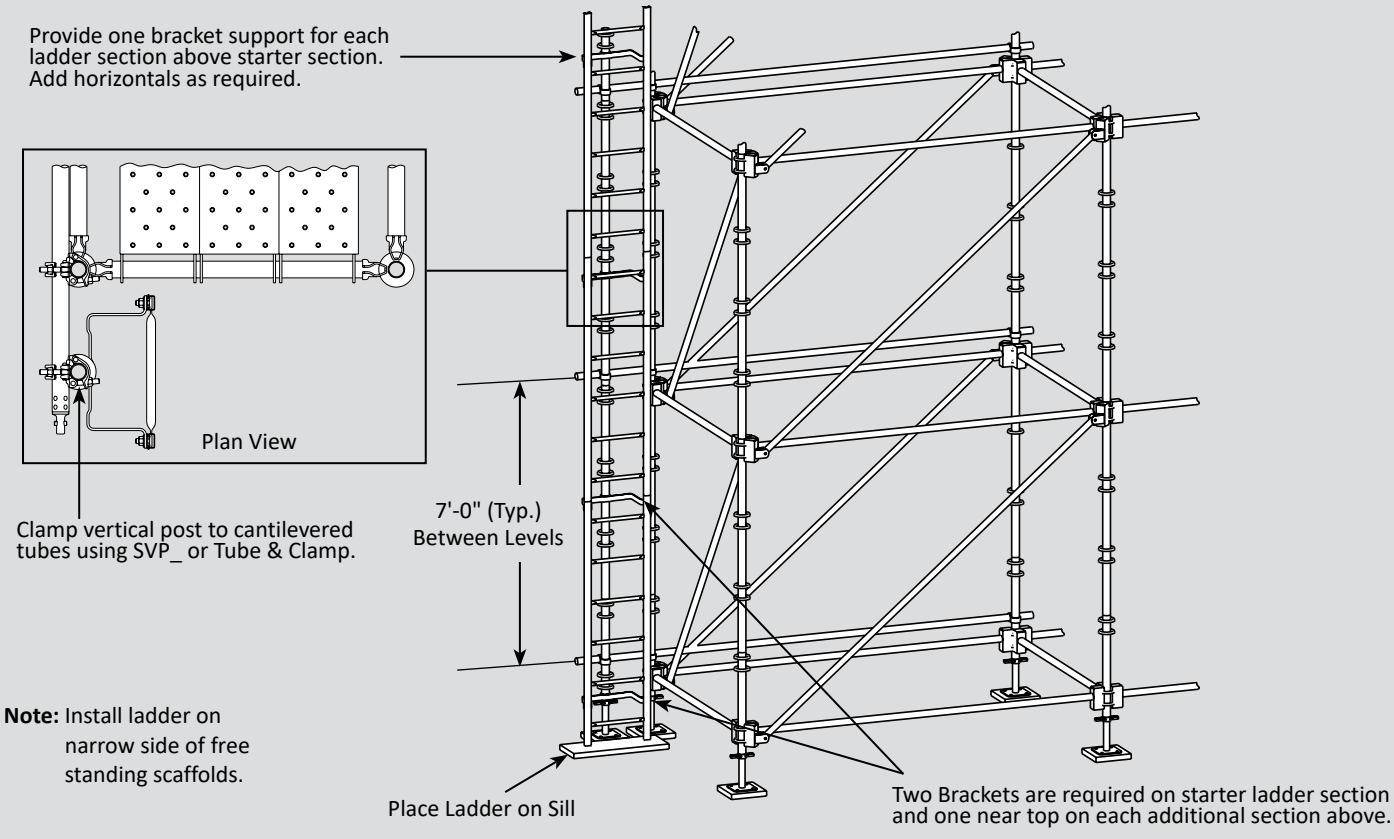
Assembly Details

SAU Ladder Access



Note: Install ladder on narrow side of free standing scaffolds.

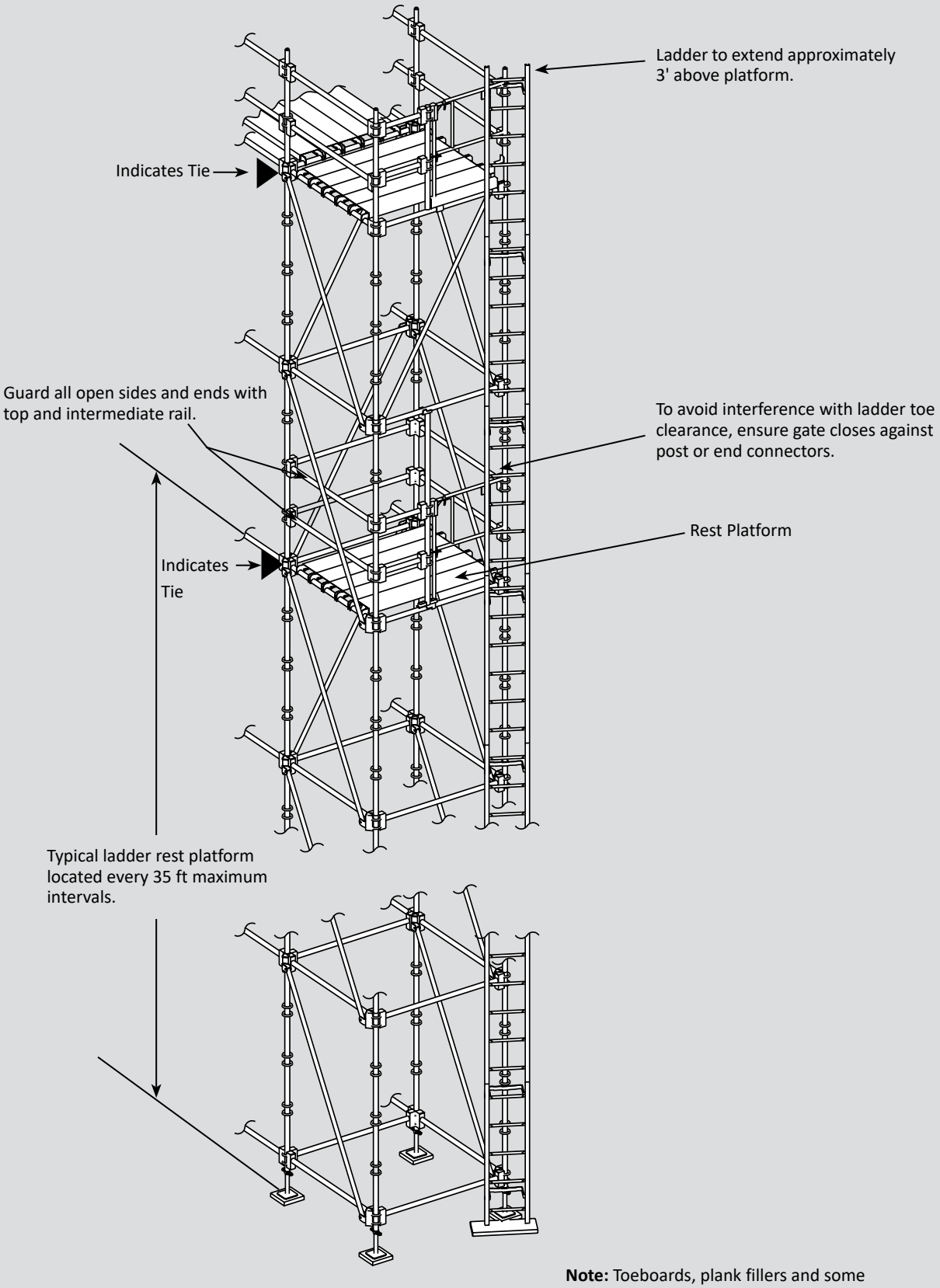
SAU Ladder Access - Turned 90°



Note: Install ladder on narrow side of free standing scaffolds.

Assembly Details

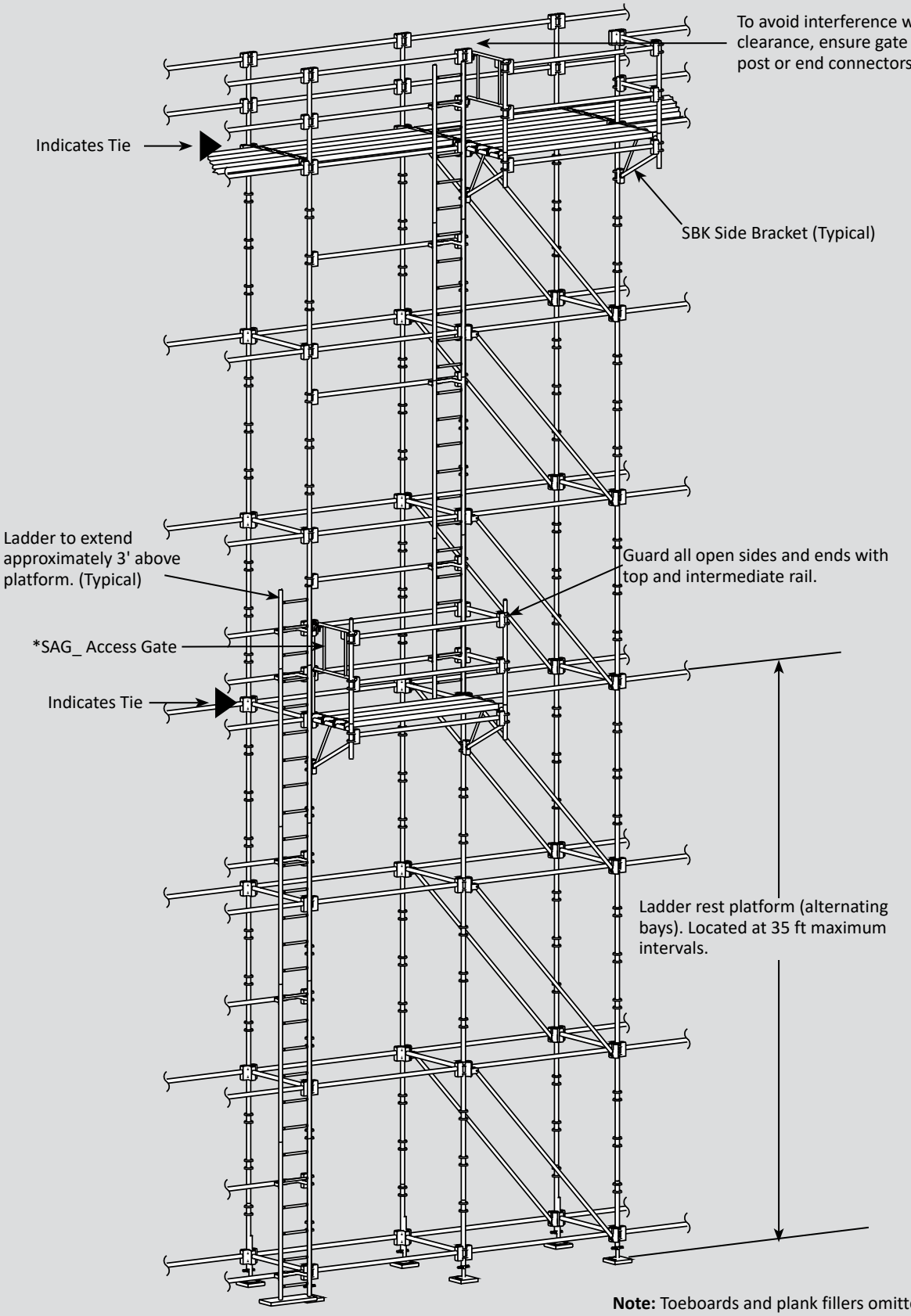
Rest Platform



Note: Toeboards, plank fillers and some diagonals are omitted for clarity.

Assembly Details

SAU Ladder Access - Used with External Landing Platforms

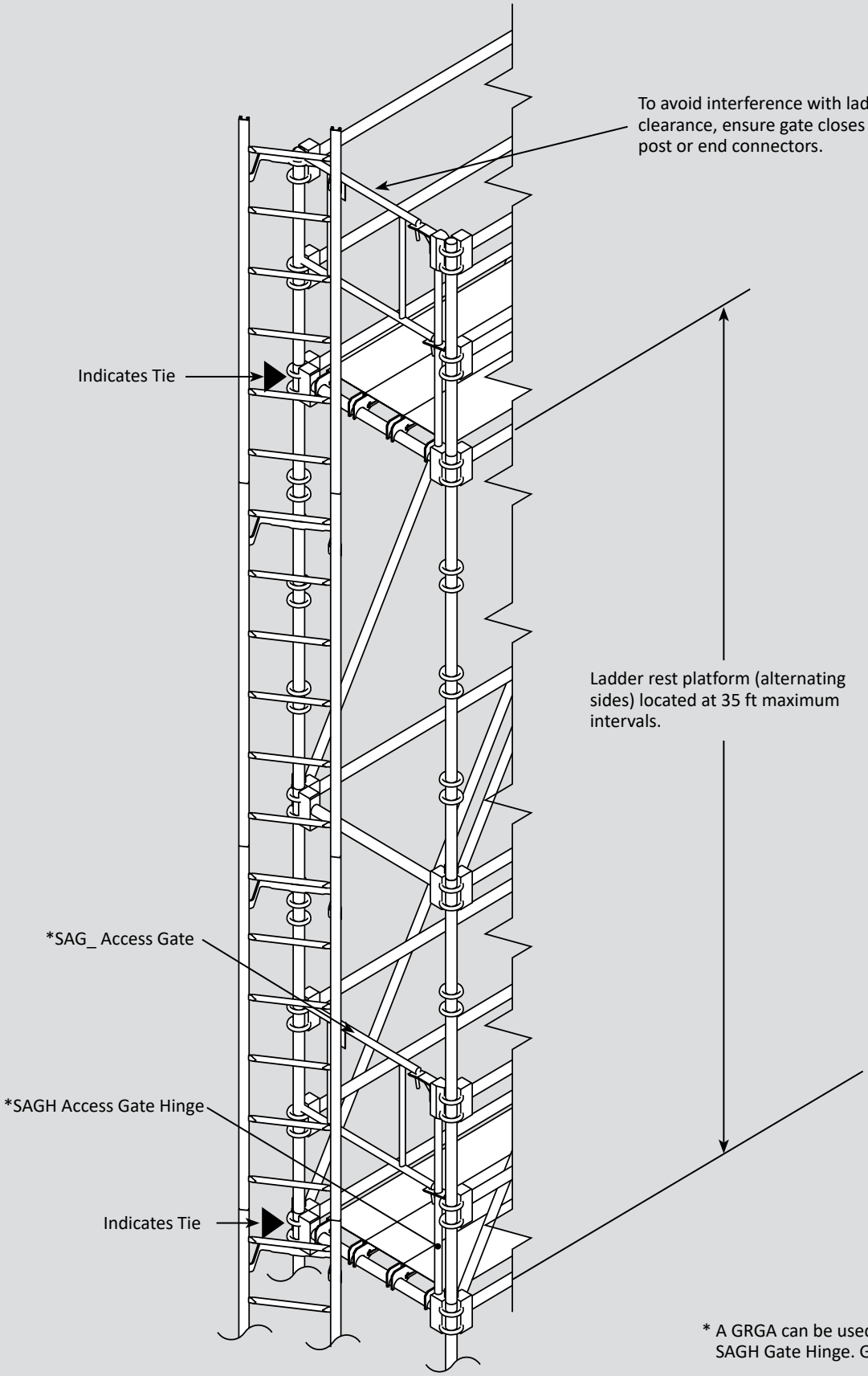


Note: Toeboards and plank fillers omitted for clarity.

* A GRGA can be used in place of SAG_ gate and SAGH gate hinge. GRGA clamps directly to SVP_.

Assembly Details

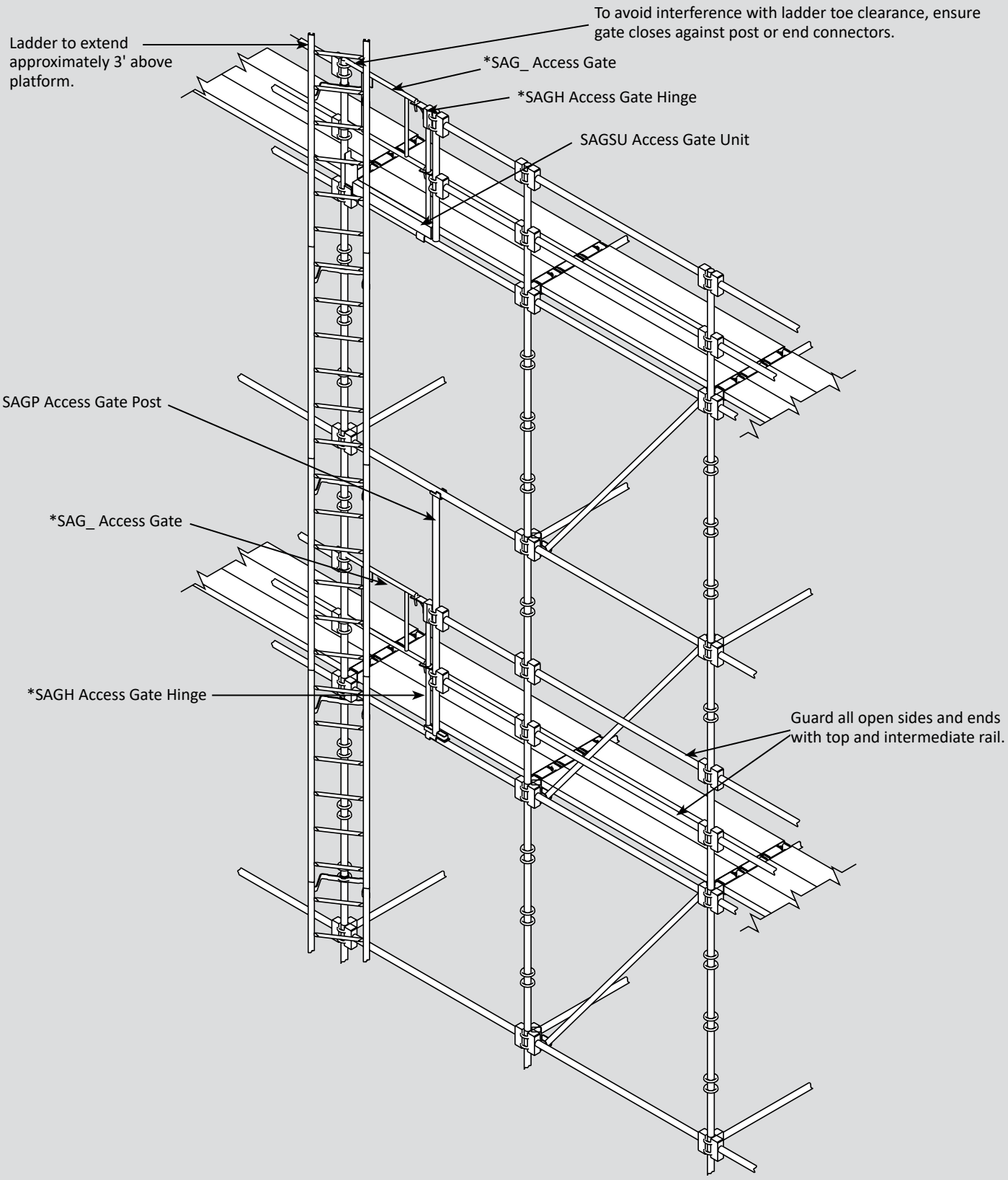
End Access - Top and Intermediate



* A GRGA can be used in place of SAG_ Gate and SAGH Gate Hinge. GRGA clamps directly to SVP_

Note: Toeboards omitted for clarity.

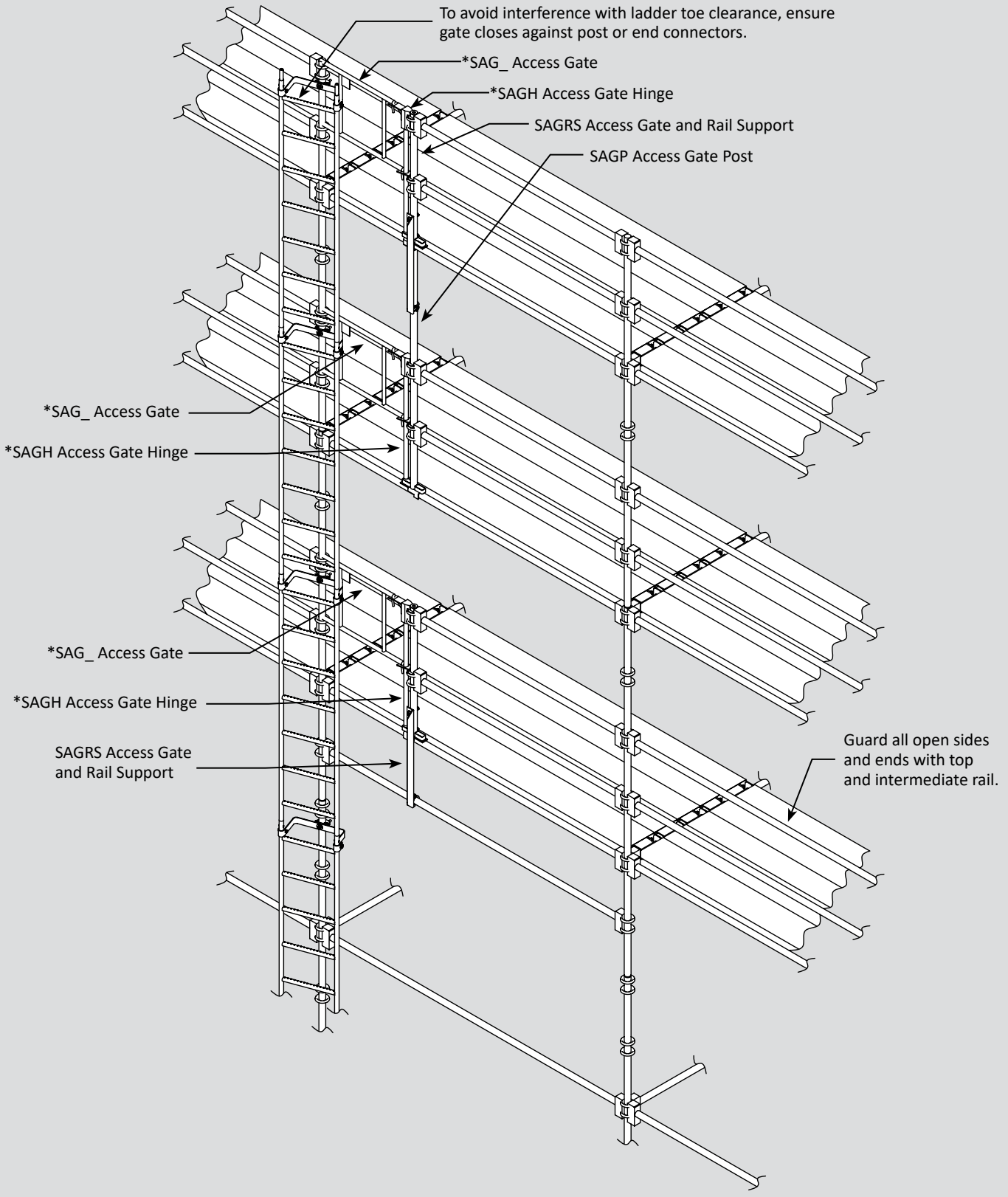
Bay Access - Top and Intermediate



* A GRGA can be used in place of SAG_ Gate and SAGH Gate Hinge. GRGA clamps directly to SVP_, SAGP or SAGSU.

Note: Toeboards and plank fillers omitted for clarity.

Bay Access - Top and Intermediate



* A GRGA can be used in place of SAG_ Gate and SAGH Gate Hinge. GRGA clamps directly to SVP_, SAGP or SAGRS

Note: Toeboards and plank fillers omitted for clarity.

Assembly Details

Gates

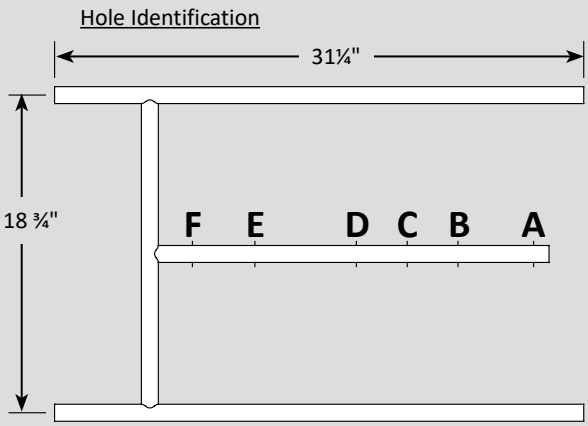


Fig. IV

Leg Spacing	Gate Configuration See Fig. IV and V
48"	B
45"	C
42"	D
36"	E
33"	F

Note: Contact BrandSafway Engineering regarding the use of configuration "A" with Systems Scaffold

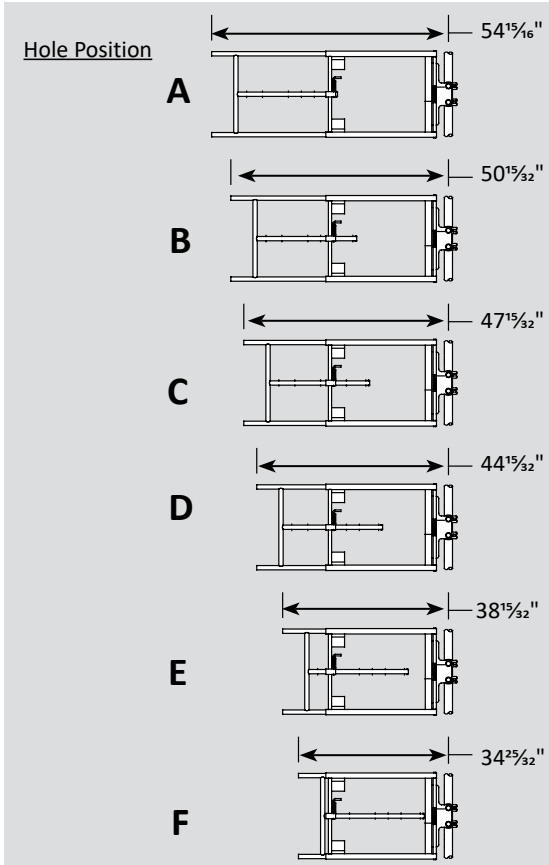
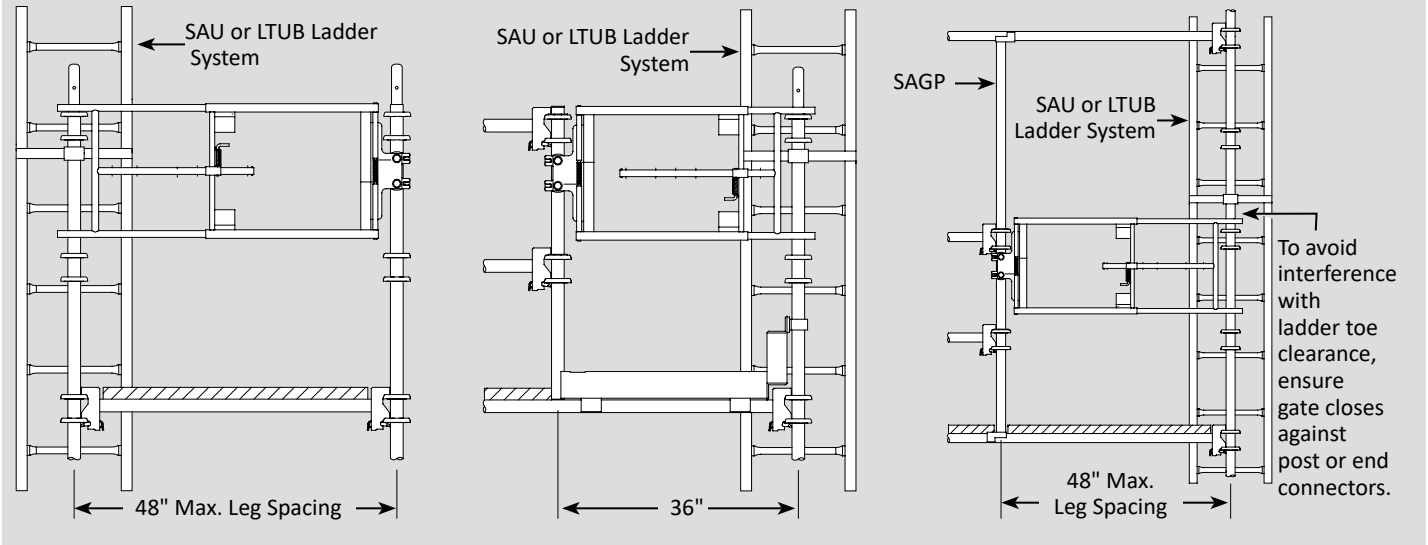


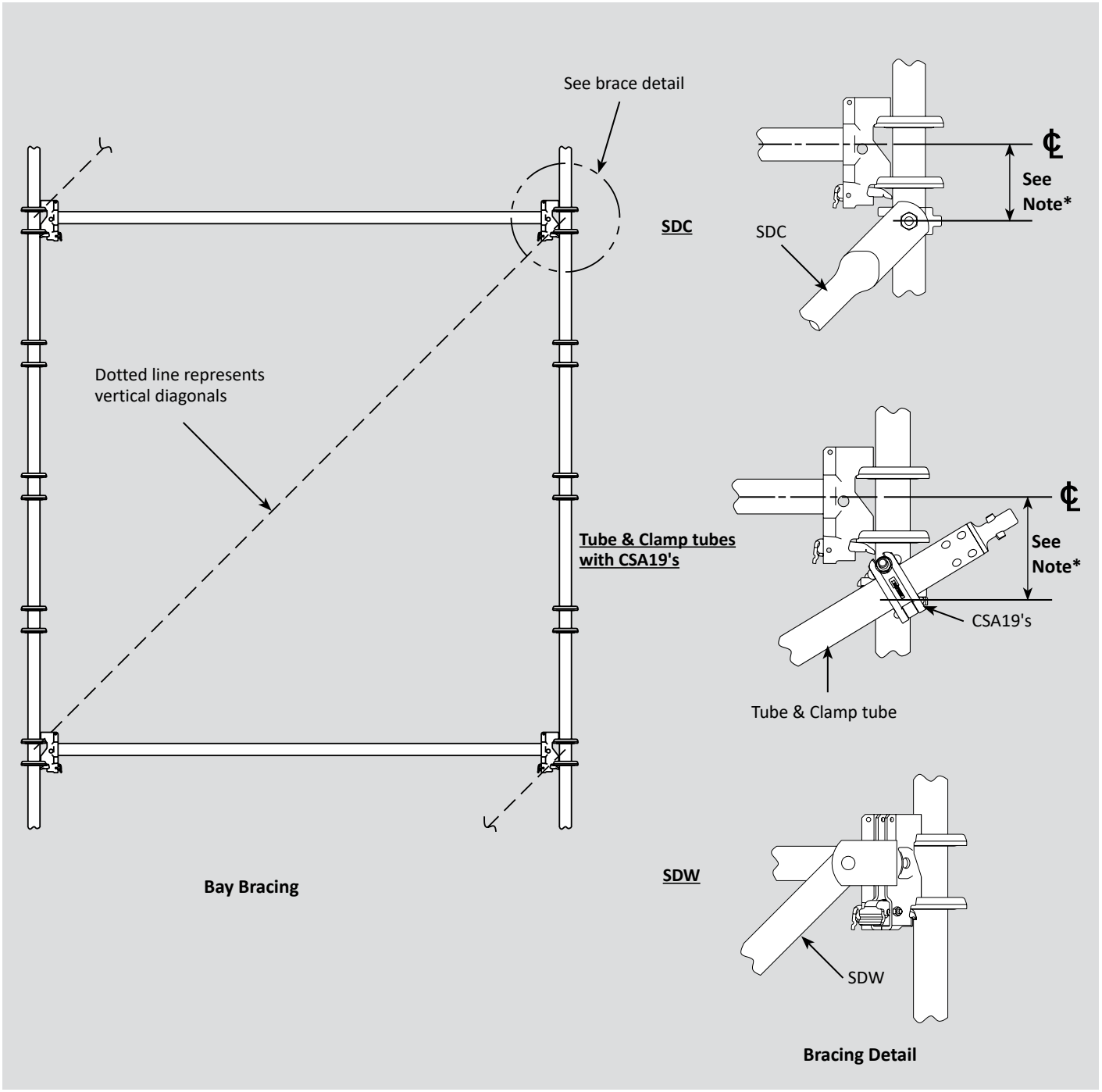
Fig. V



Images shown from inside scaffold.

Assembly Details

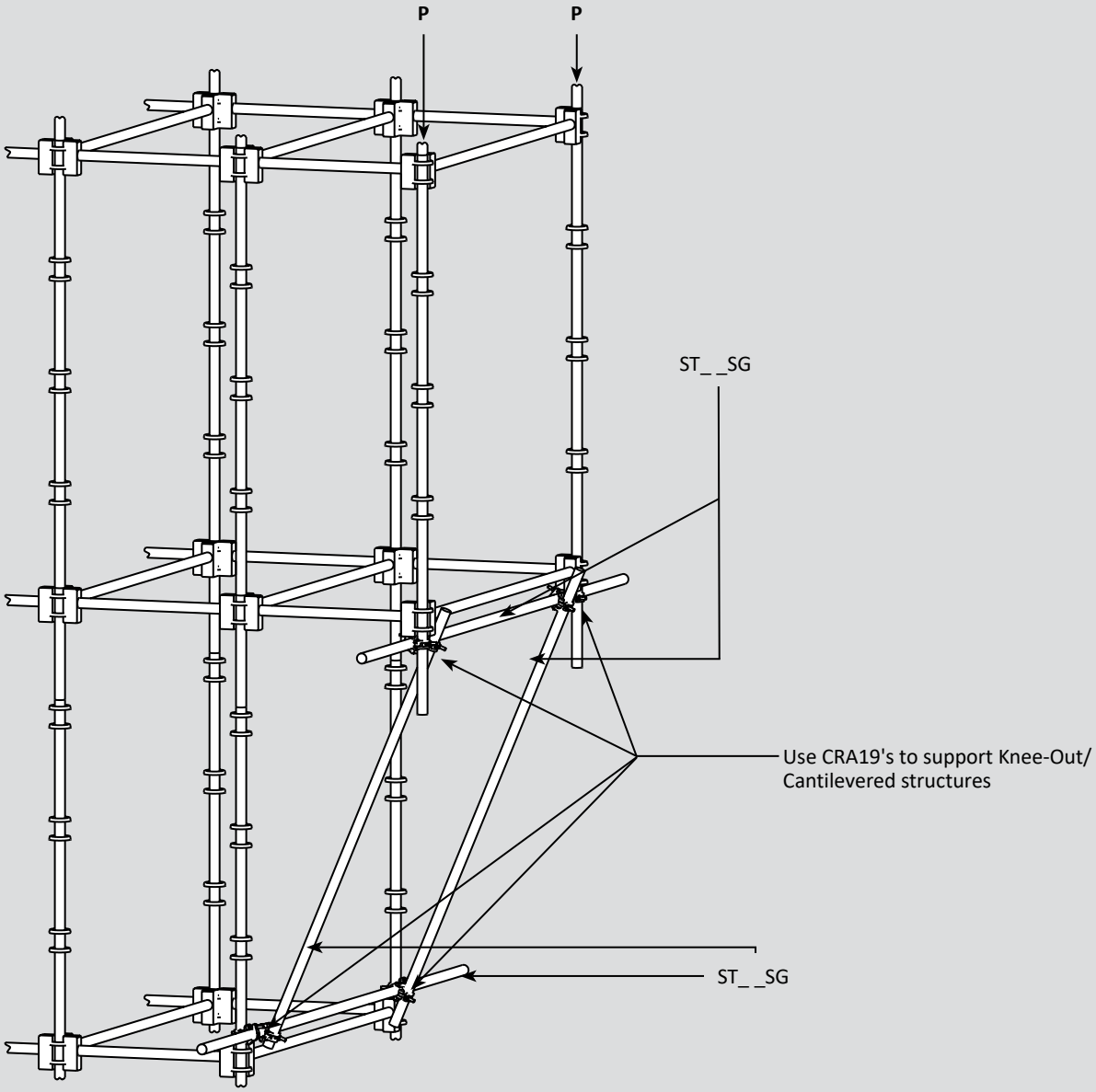
Vertical Diagonals Used For Sway/Stability Bracing



*** Attach vertical diagonal to vertical post near horizontal member.**

Assembly Details

Knee-Out/Cantilevered Structures

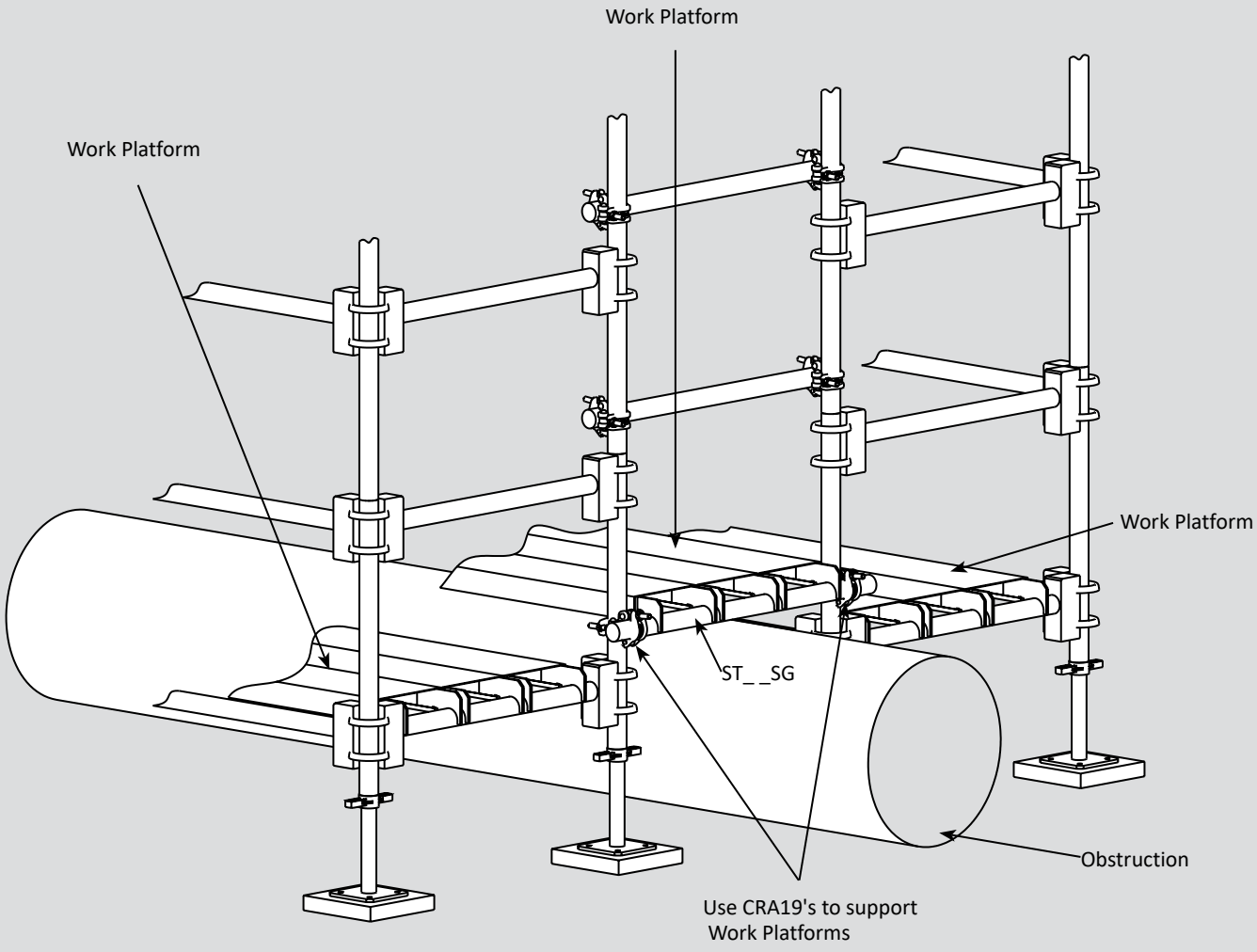


Knee-Out/Cantilevered Structures

Use CRA19 clamps in knee bracing used to support cantilevered bays or scaffold legs not supported from below. Designer to verify capacity of the knee bracing tubes which may be doubled up if necessary. Install ties as needed to maintain stability of scaffold. Consult BrandSafway Engineering or a qualified engineer familiar with scaffold design for other situations.

Assembly Details

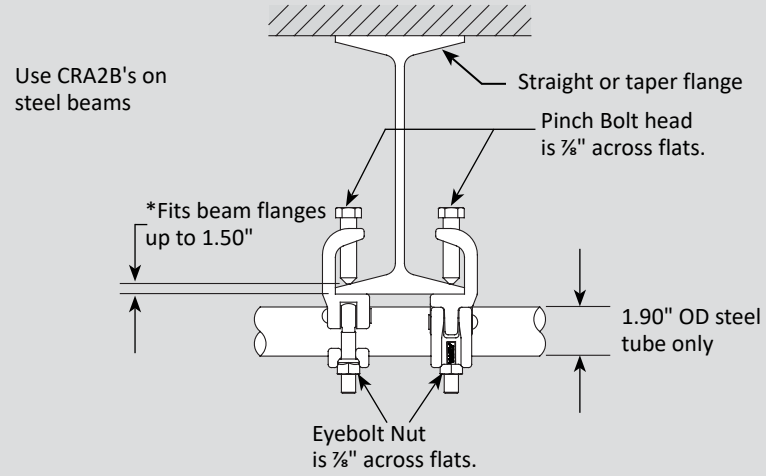
Intermediate Work Platforms



Note: Toeboards and vertical diagonals omitted for clarity.

Assembly Details

Hanging Scaffold



Notes:

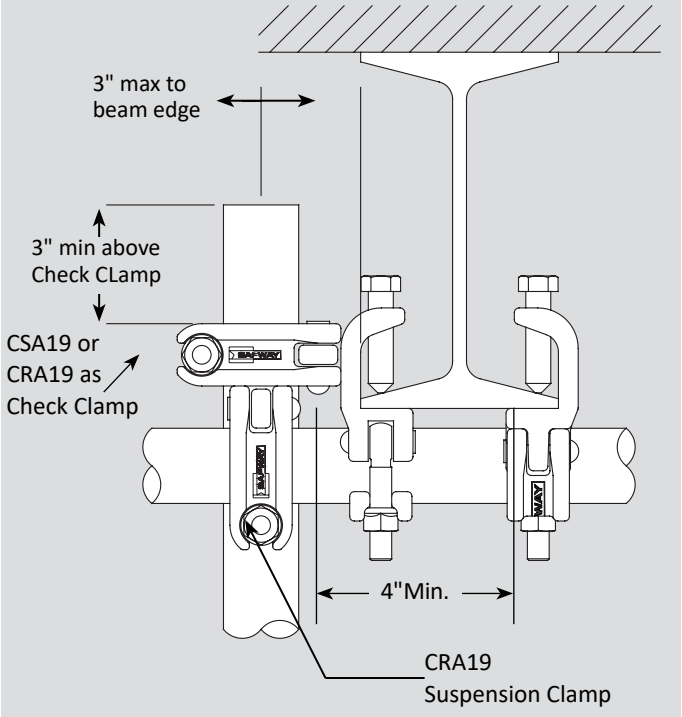
- CRA2B's must ALWAYS be used in pairs on the same beam.
- Both clamps must show SAFWAY on the cap.

Installation Procedure

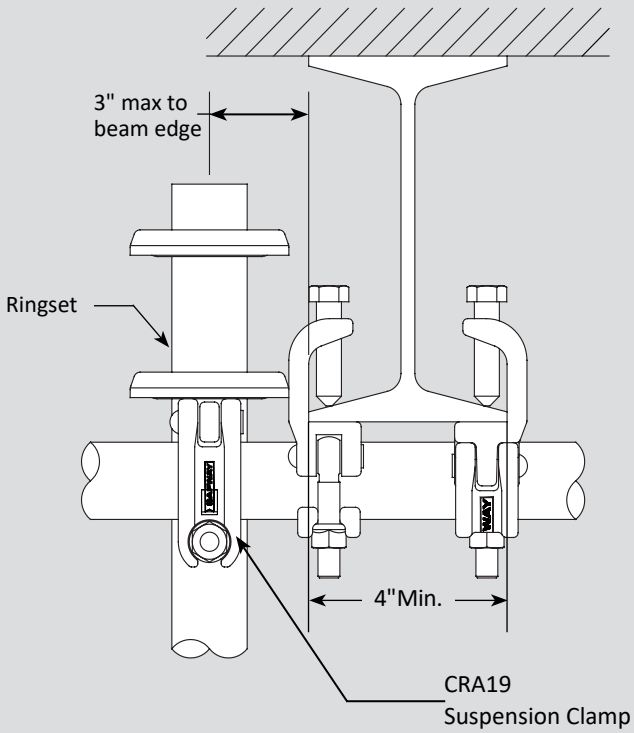
- All beams are level/plumb and secured from movement.
- Beams have a minimum flange thickness of ¼"*.
- Beams have a minimum flange width of 4".
- All bolts tightened to approximately 45 ft-lb.
- Consult with BrandSafway Engineering, or a qualified engineer familiar with scaffold design for other situations.
- The user must determine the load capacity of the I-Beam and support structure to verify the rated load of the complete scaffold.

* If attaching to a structural member with a flange thickness less than 1/4", consult with a qualified engineer familiar with scaffold design, to verify the member's ability to safely support the maximum intended load.

Hanging BrandSafway Tube and Clamp Scaffold

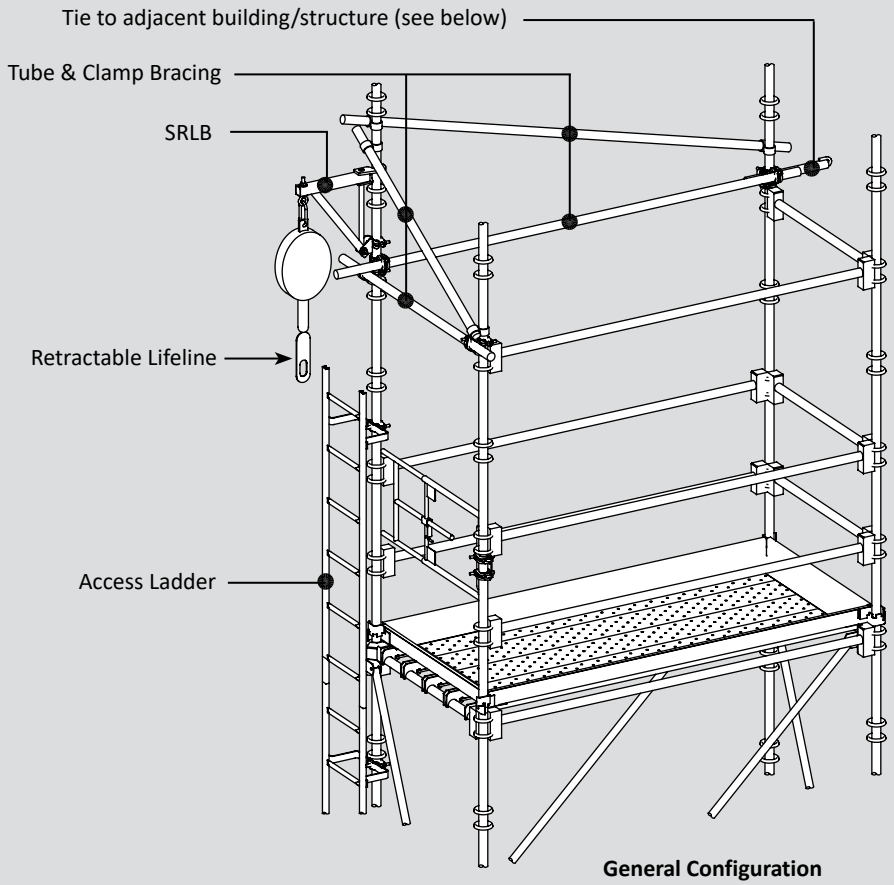


Hanging BrandSafway Systems™ Scaffold

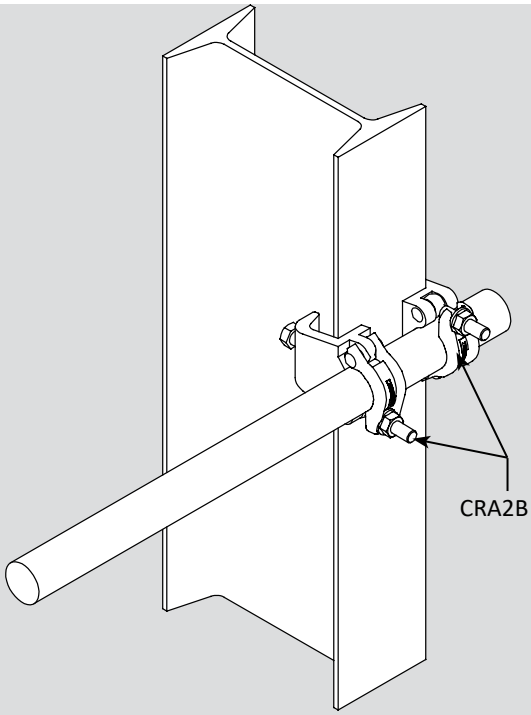


Assembly Details

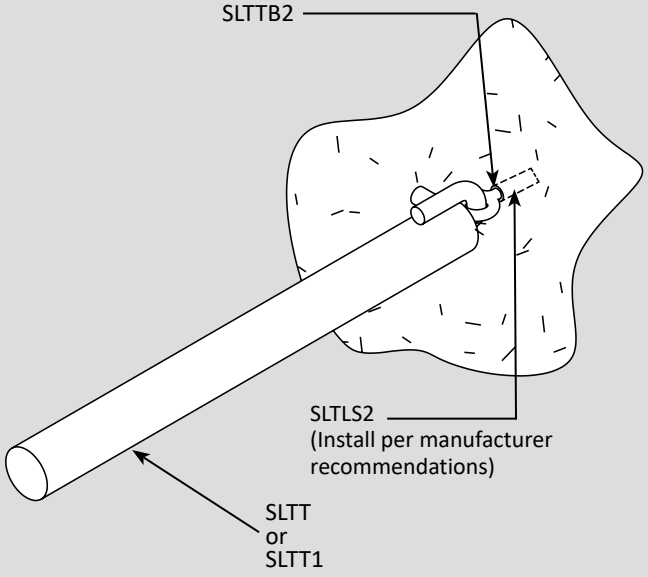
Typical Retractable Lifeline Bracket Installation



General Configuration



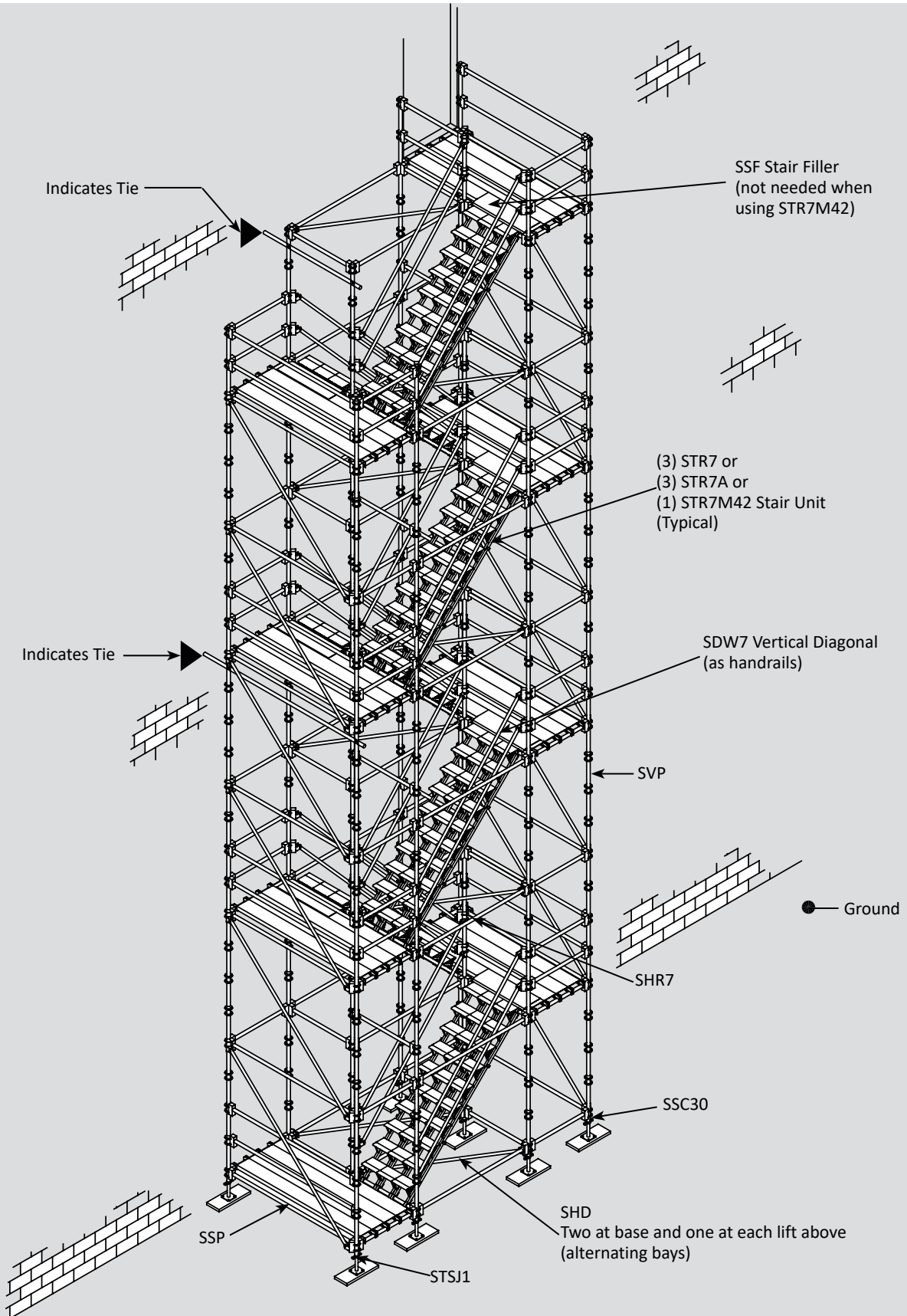
Tie Detail (Steel Anchorage)



Tie Detail (Concrete Anchorage)

Assembly Details

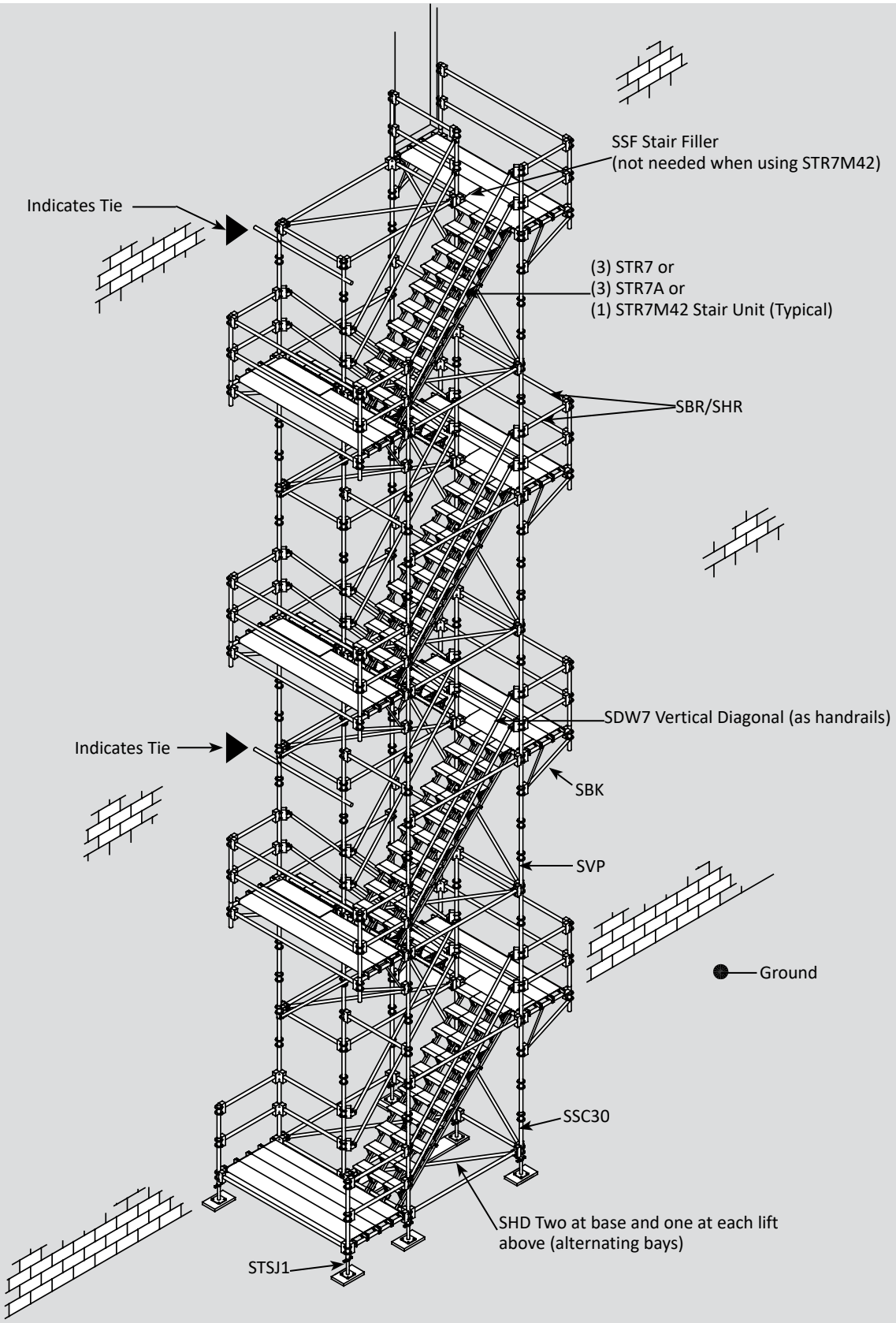
Typical Stair Towers



Landings supported by Vertical Posts - 10-Leg Stair Tower (Type L)

Assembly Details

Typical Stair Towers

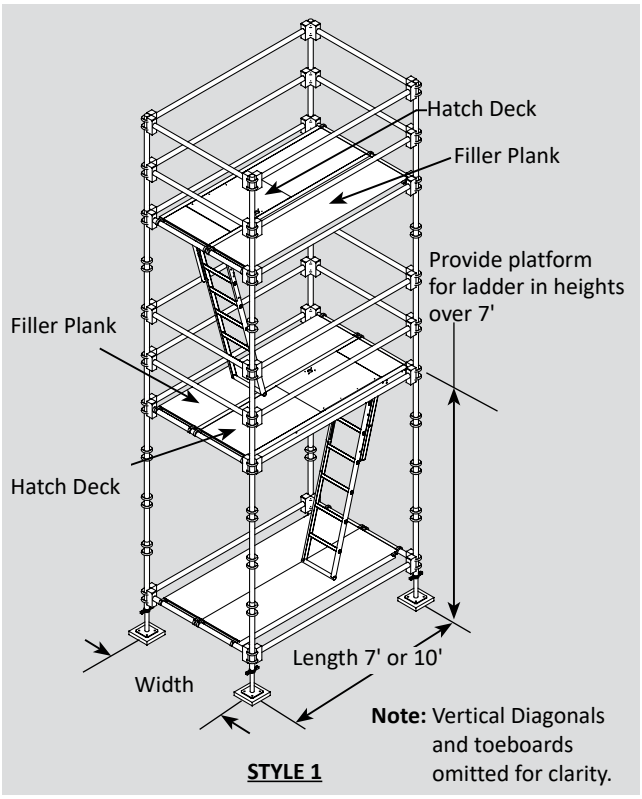


Landing Supported by Side Brackets - 6-Leg Stair Tower (Type B)

Assembly Details

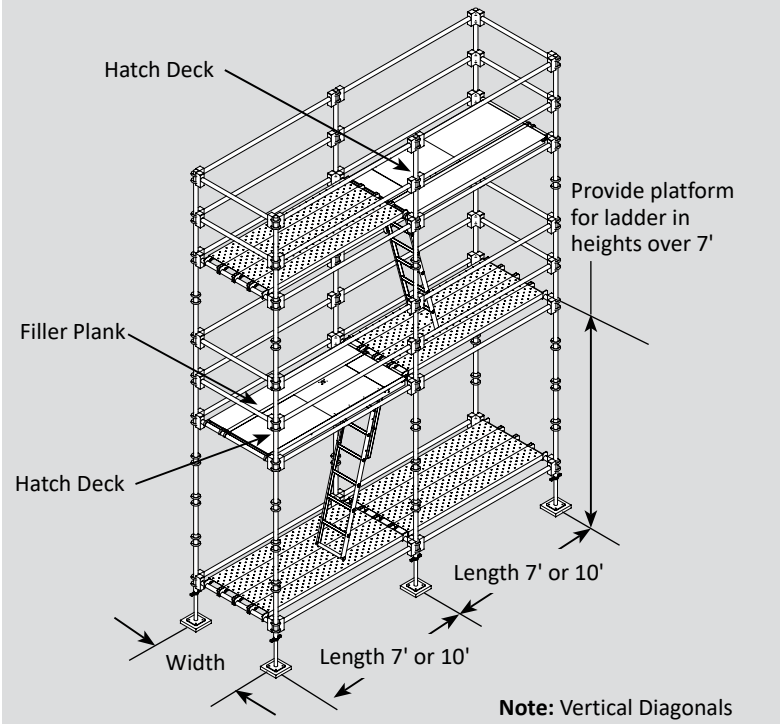
Hatch Decks

	Bay Width	Filler Plank		Gap	Set-Up Style
	ft-in	19 ¼"	11"	in	
SBR_	4'-0"	-	1	2⅜"	2
	54"	1	-	0⅛"	1 or 2
	5'-0"	1	-	6⅛"	1 or 2
STB_	6'-0"	-	3	4⅜"	1 or 2
	7'-0"	-	4	5⅜"	1 or 2
	8'-0"	3	-	3⅝"	1 or 2
	9'-0"	3	1	4⅝"	1 or 2
	10'-0"	3	2	5⅝"	1 or 2
	12'-0"	5	1	2⅛"	1 or 2
	14'-0"	5	3	4⅛"	1 or 2
	16'-0"	8	-	3⅜"	1 or 2
	18'-0"	8	2	5⅜"	1 or 2



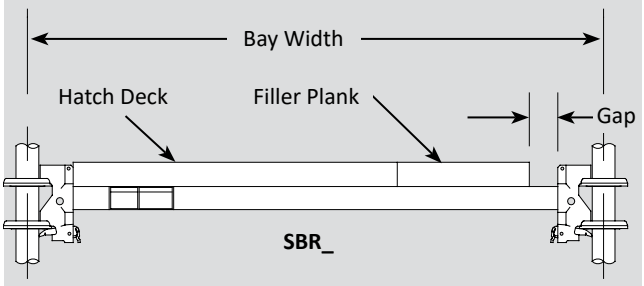
Note: Vertical Diagonals and toeboards omitted for clarity.

STYLE 1

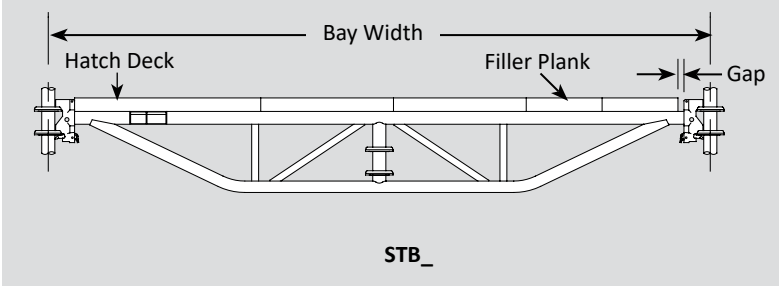


Note: Vertical Diagonals and toeboards omitted for clarity.

STYLE 2



SBR_

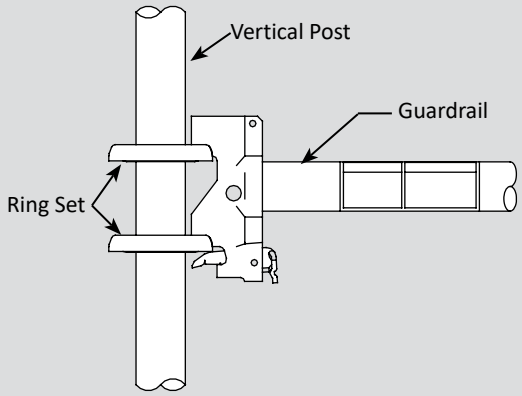


STB_

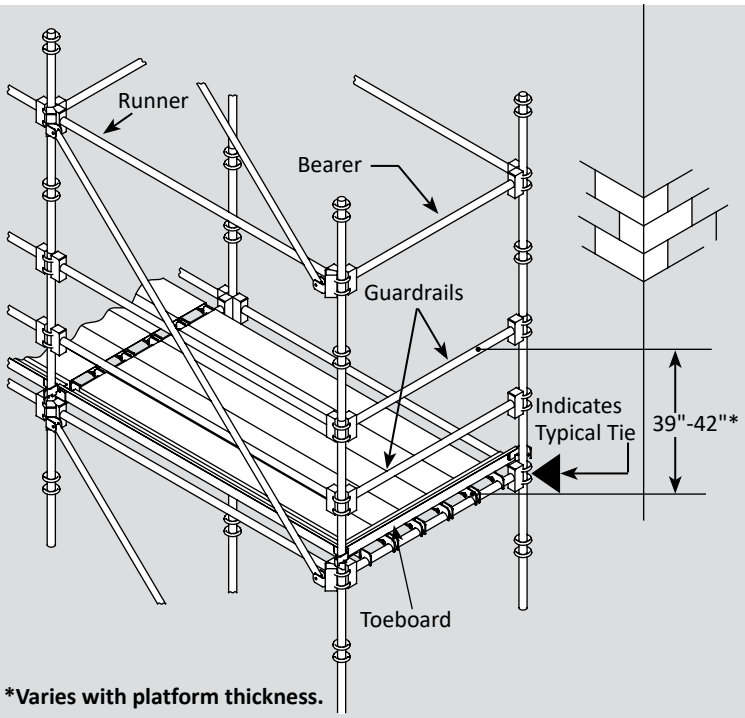
Assembly Details

Scaffold Guardrail Installation

All Scaffold Locations



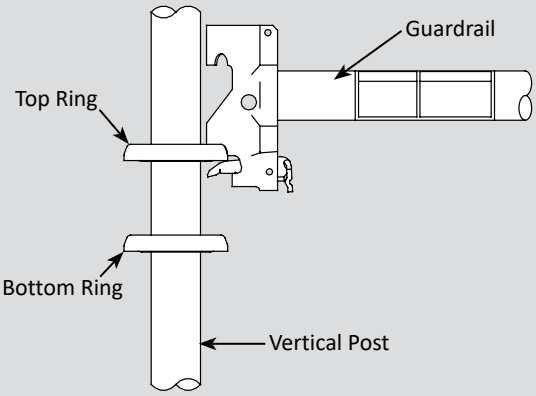
Attach all horizontals including guardrails, runners, bearers, side brackets and any truss bearers to both rings of a ring set on vertical posts.



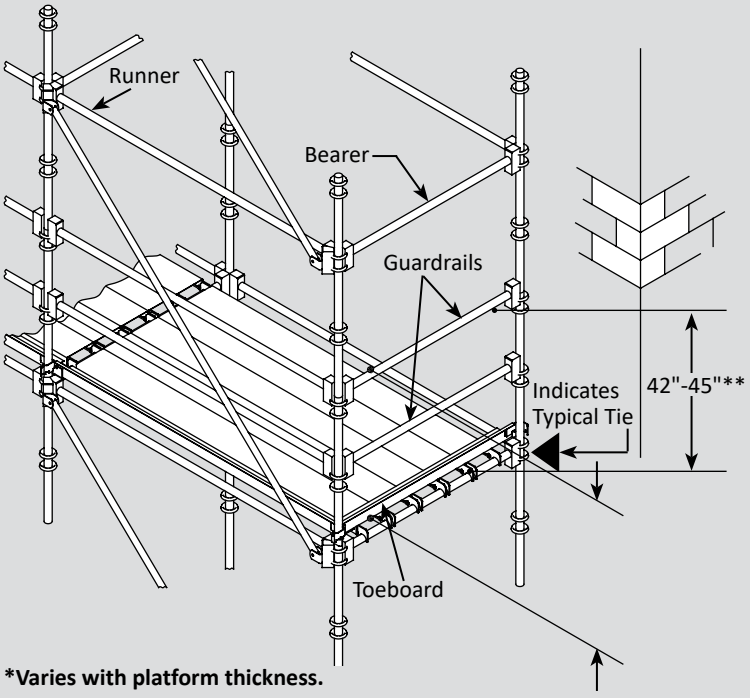
***Varies with platform thickness.**

Note: Plank fillers omitted for clarity.

Alternative location used when 45" guardrail height is required.**



Alternative top ring attachment position for guardrails. This alternate applies to scaffold top guardrails only. Other components such as runners and bearers must attach on both top and bottom ring of a ring set.



***Varies with platform thickness.**

Note: Plank fillers omitted for clarity.

* Top of platform to top of guardrail.

** Required in states such as California.

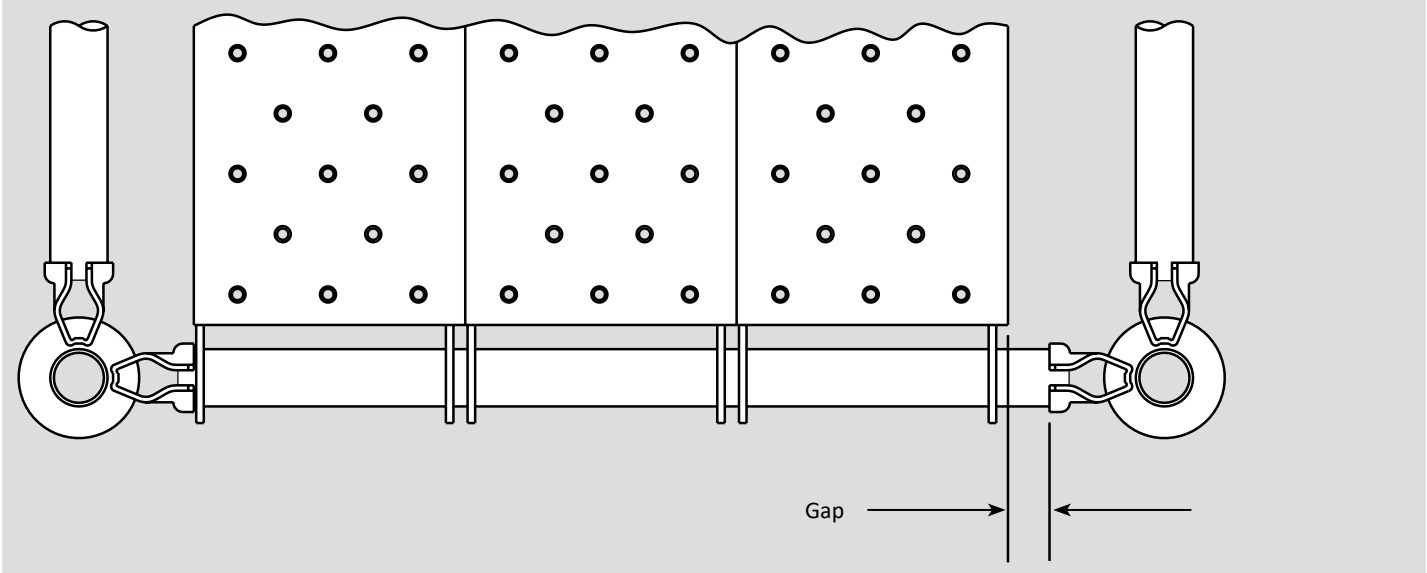
Assembly Details

Plank

Plank Chart		Steel Plank SSP & Sandblast Plank SSPB 9" Wide		Duraplank FSPH & SSPH and Wood Plank 9 ¼" Wide		All Aluminum and Aluminum Plywood Decks 19 ¼" Wide	
		QTY of Planks	Gap in	QTY of Planks	Gap in	QTY of Planks	Gap in
BEARERS	SBR2	1*	7⅜"	1*	7⅛"	0*	16⅜"
	SBR33	2	7⅜"	2	6⅞"	1	6⅛"
	SBR3	3	1⅜"	3	⅝"	1	9⅛"
	SBR42	3	7⅜"	3	6⅝"	1*	15⅛"
	SBR45	4	1⅜"	4	⅜"	1*	18⅛"
	SBR4	4	4⅜"	4	3⅜"	2	1⅞"
	SBR54	5	1⅜"	5	⅛"	2	7⅞"
	SBR5	5	7⅜"	5	6⅛"	2*	13⅞"
TRUSS BEARERS	STB6	7	1⅜"	6	8⅞"	3	6⅝"
	STB7	8	4⅜"	8	2⅜"	3*	18⅝"
	STB8	9	7⅜"	9	5⅛"	4*	11⅜"
	STB9	11	1⅜"	10	7⅞"	5	4⅛"
	STB10	12	4⅜"	12	1⅜"	5*	16⅛"
	STB12	15	1⅜"	14	6⅞"	7	1⅝"
	STB14	17	7⅜"	17	3⅛"	8	6⅜"
	STB16	20	4⅜"	19	8⅝"	9*	11⅛"
	STB18	23	1⅜"	22	4⅞"	10*	15⅞"
SIDE BRACKETS AND KNEE-OUTS	SBK2	2	1¼"	2	¾"	1	1/16"
	SBK33	3	1¼"	3	½"	1	9"
	SBK3/SKO3	3	4¼"	3	3½"	1*	12"
	SKO45	4	4¼"	4	3¼"	2	1¾"

Gap indicates the difference between the net width of the horizontal member and the actual platform width. Plank gaps larger than 6" can be filled with one additional SSP6_ (applies only when using SSP, SSPB or SSPH planks). All scaffold platforms must be a minimum of 18" wide.

*Indicates plank gaps are greater than 9 ½" or the actual platform width does not meet the 18" minimum requirement. These platforms are not recommended as work platforms.

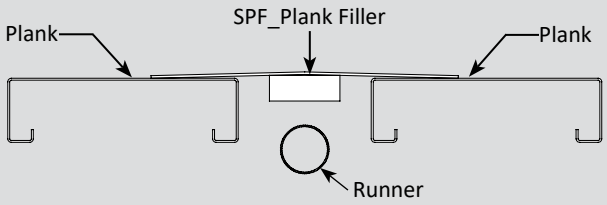


Assembly Details

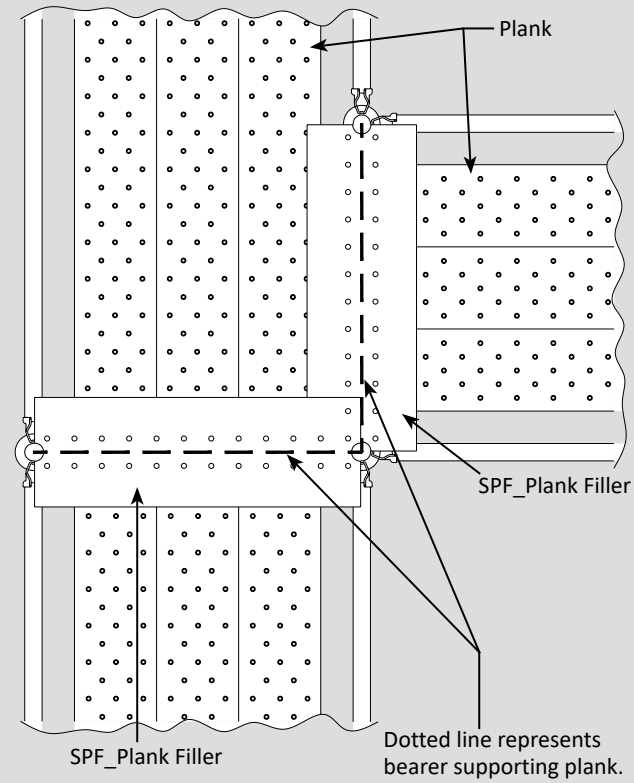
Plank Filler

Plank Filler Chart		No. and Size of Plank Fillers			
		SPF18	SPF2	SPF3	SPF45
BEARERS	SBR2		1		
	SBR33				
	SBR3			1	
	SBR42	1	1		
	SBR45				1
	SBR4		2		
	SBR54	1		1	
	SBR5		1	1	
TRUSS BEARERS	STB6			2	
	STB7		2	1	
	STB8		1	2	
	STB9			3	
	STB10		2	2	
	STB12			4	
	STB14		1	4	
	STB16		2	4	
	STB18		1	6	
SIDE BRACKETS AND KNEE-OUTS	SBK2		1		
	SBK33				
	SBK3/SKO3			1	
	SKO45				1

Note: Dark shaded areas indicate plank fillers are not available. Plank fillers are intended for use with SSP, SSPB and SSPH planks.



Plank Filler Detail



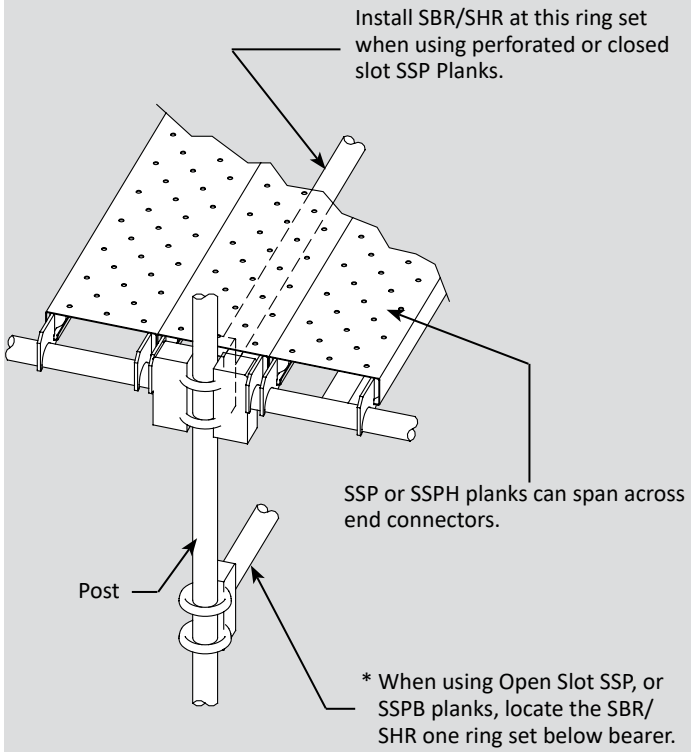
Assembly Details

Plank Installed at Angles

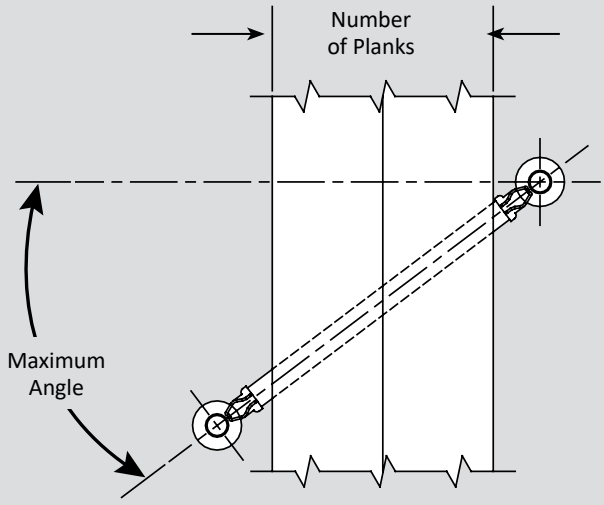
2 x 10 Wood Planks Installed at Angles to Bearer

Part No.	Description	No. of Planks	Maximum Angle
SBR54	Bearer	4	33°
SBR4	Bearer	4	18°
SBR4	Bearer	3	43°
SKO45	Knee Out	3	44°
SBR45	Bearer	3	38°
SBR42	Bearer	3	32°
SBK3	Side Bracket	3	22°
SKO3/SBK3	Knee Out/ Side Bracket	2	50°
SBR3	Bearer	2	44°
SBK33	Side Bracket	2	45°
SBR33	Bearer	2	37°

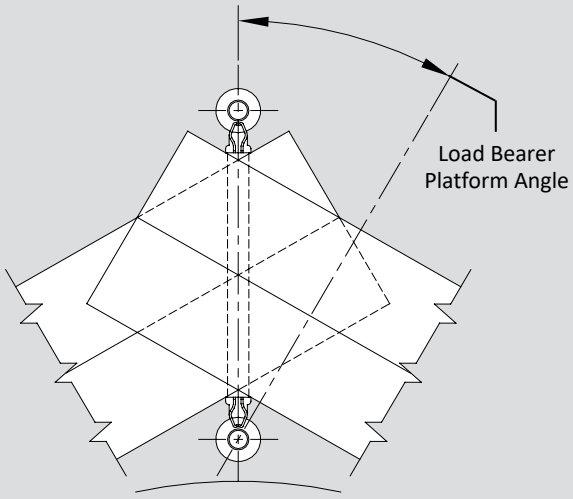
Note: Angles shown are determined with 9 ¼" plank width. Planking Chart for 9 ¼" Planks (page 83) illustrated the plank/ bearer recommended gap when a load bearing member is perpendicular to a platform run. This gap diminishes when the load bearing member intersects the platform at an angle. Refer to the chart above to determine the maximum load bearer/platform angle for 2, 3 and 4 plank wide platforms. Also, see example below.



Plank Spanning Post/End Connector



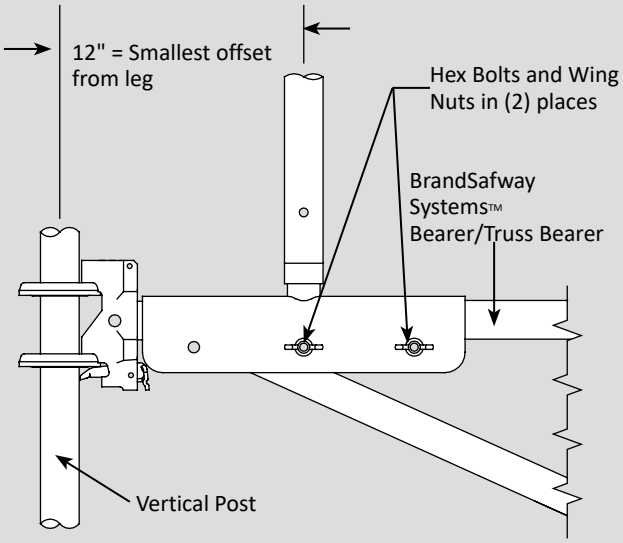
Planking at Angles

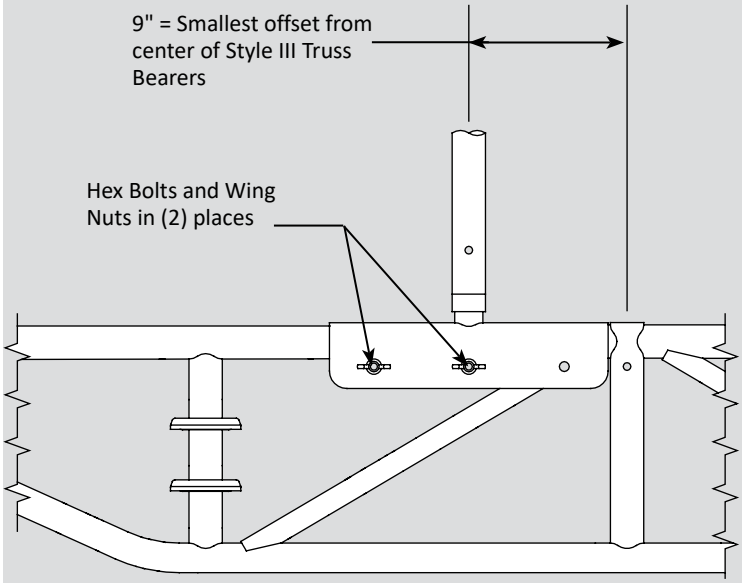


Planking at Angles - Circular Scaffold

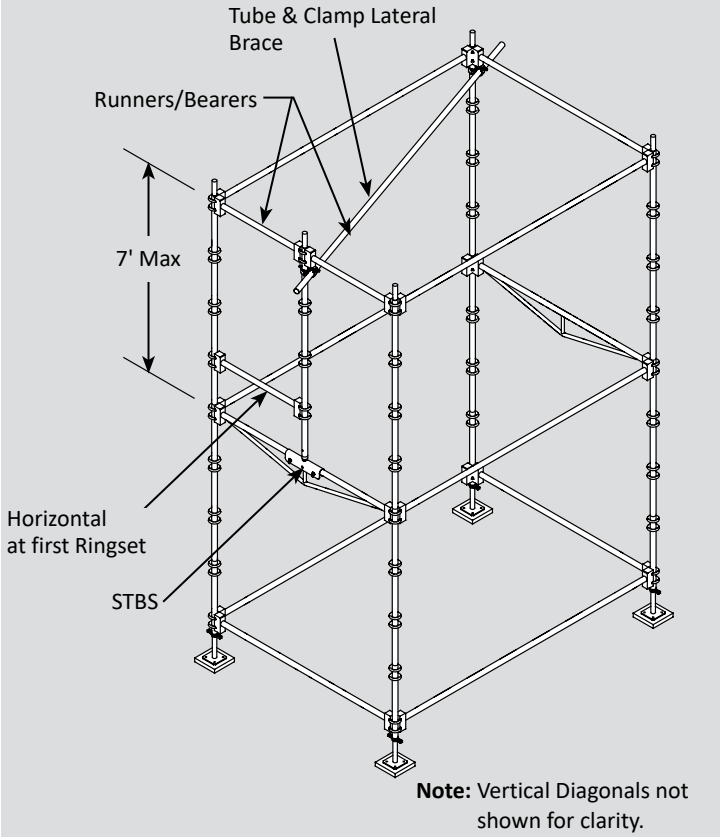
Assembly Details

Truss



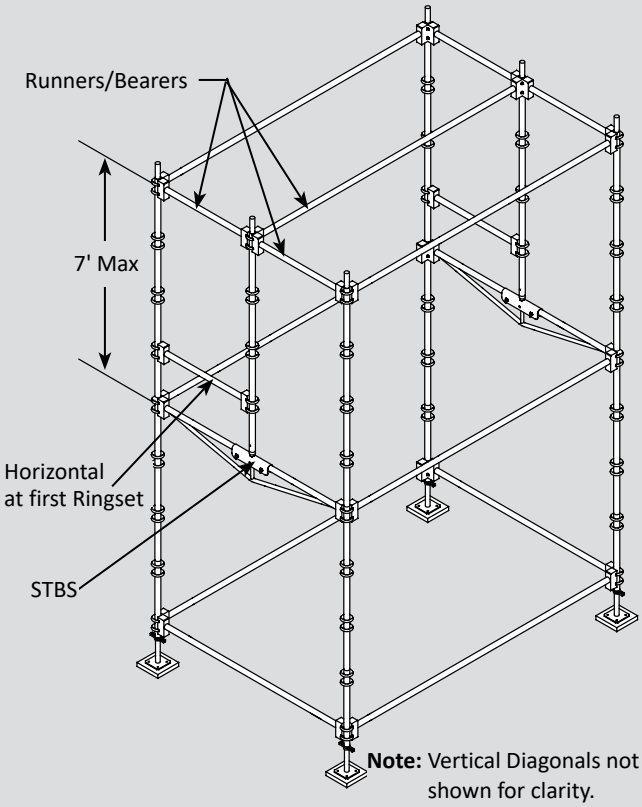


BrandSafway Systems™ Style III Truss Bearer



Note: Vertical Diagonals not shown for clarity.

Starting a Single Leg

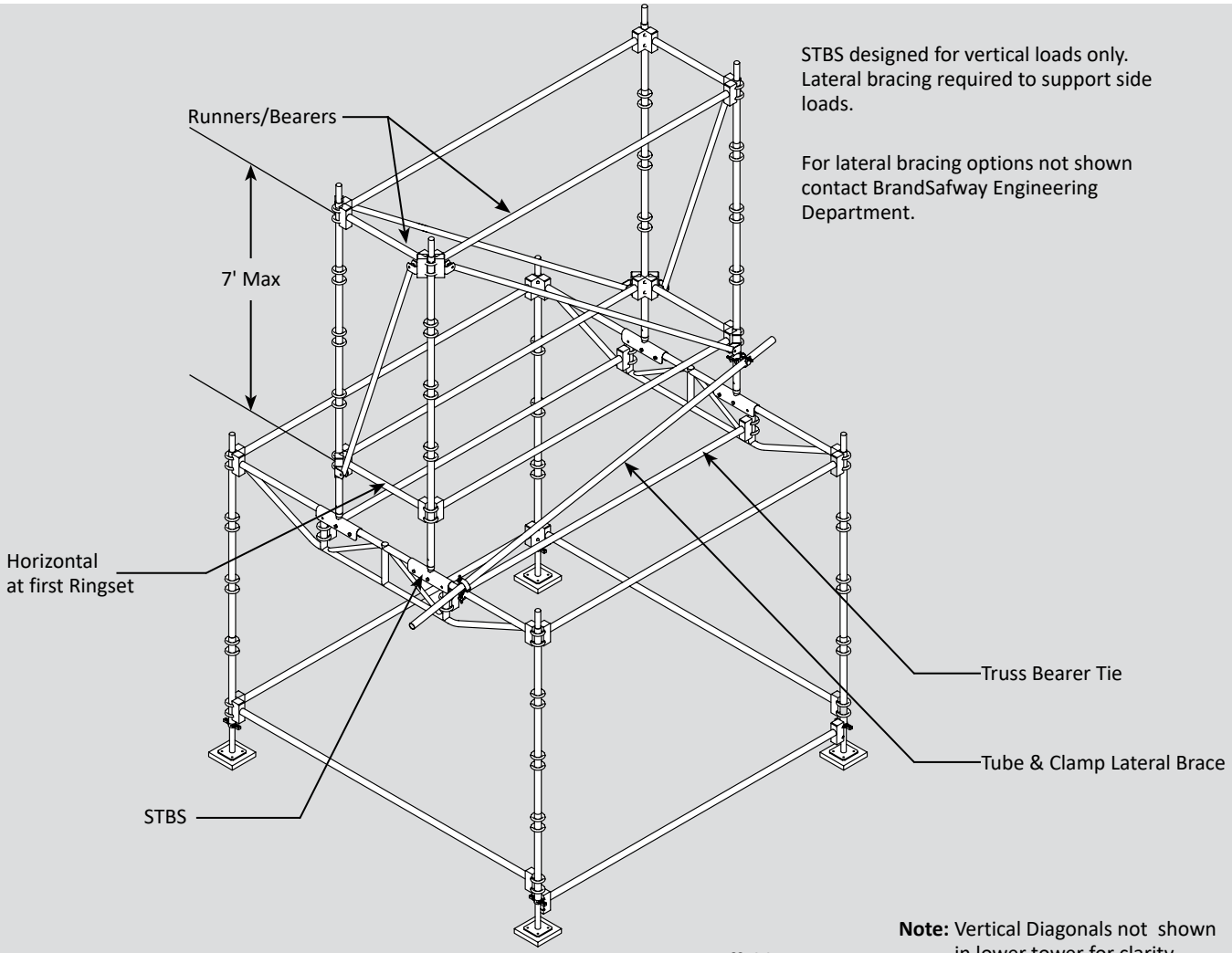


Note: Vertical Diagonals not shown for clarity.

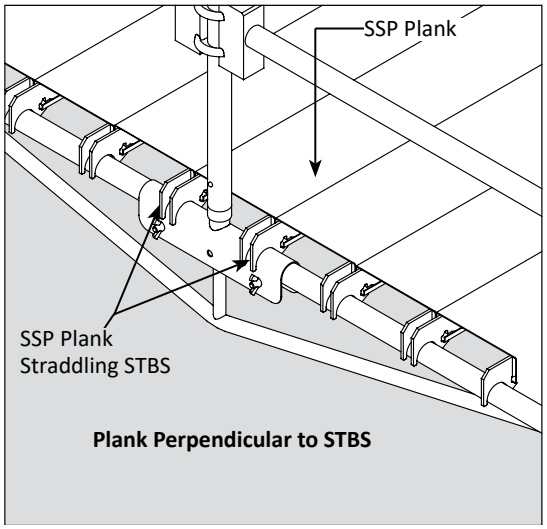
Starting Multiple Legs in a Run

Assembly Details

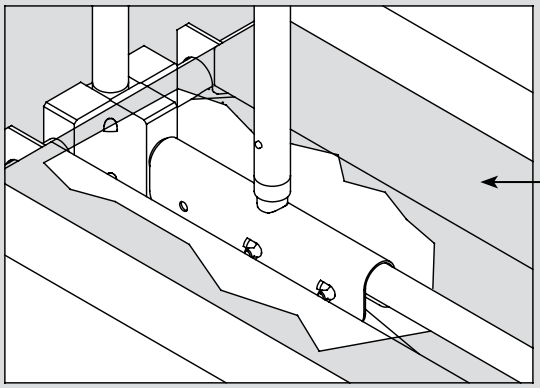
Restarting Scaffold Off of Truss Bearer



Starting A New Scaffold Bay



Plank Perpendicular to STBS

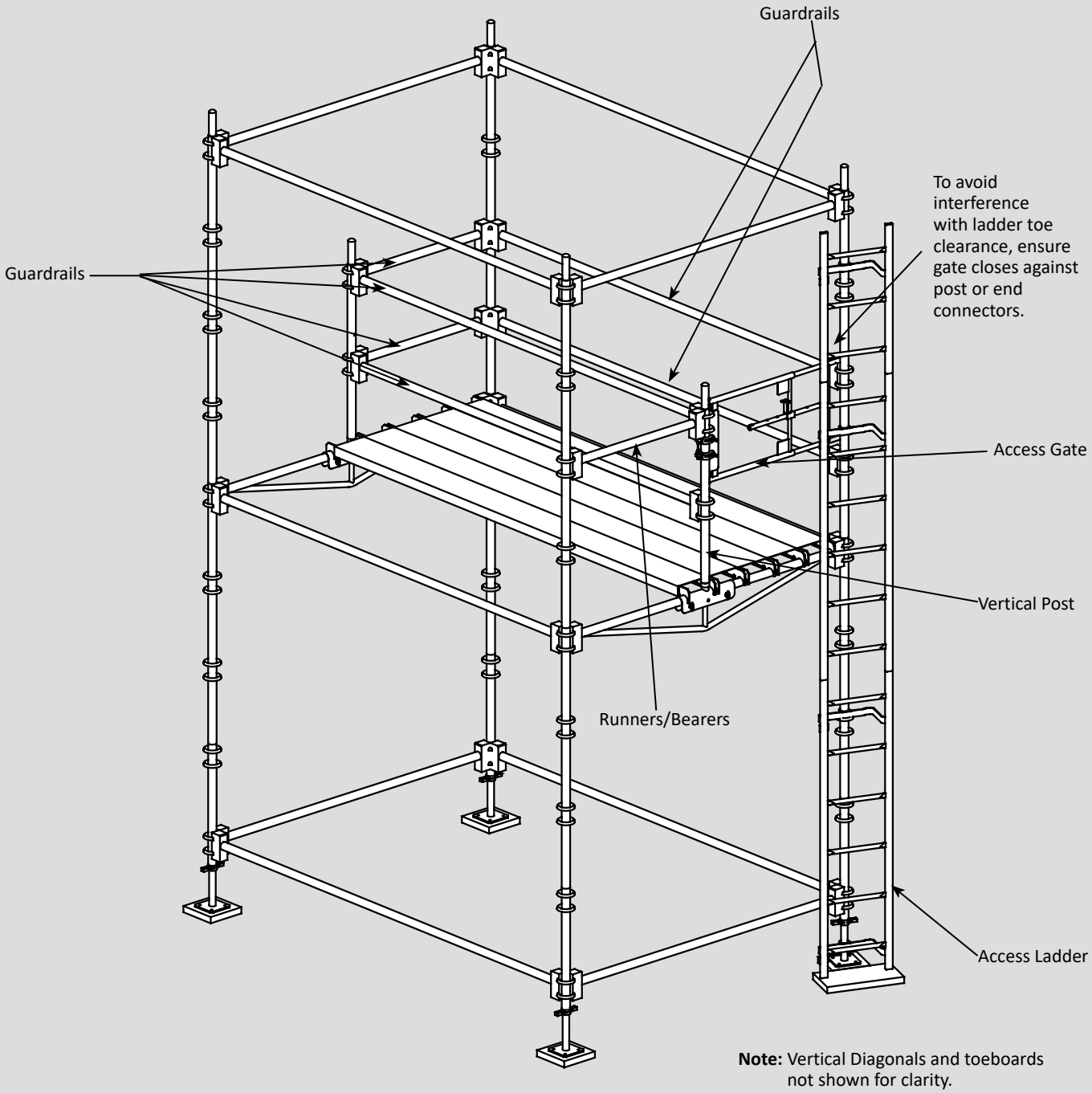


Plank Parallel to STBS

Note: Toeboards and vertical diagonal bracing not shown for clarity.

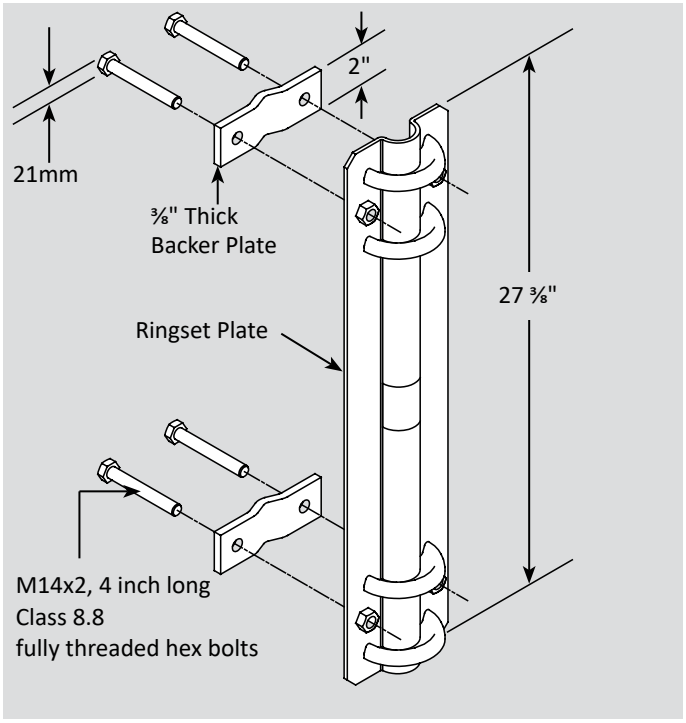
Assembly Details

Partial Platform and Guardrail

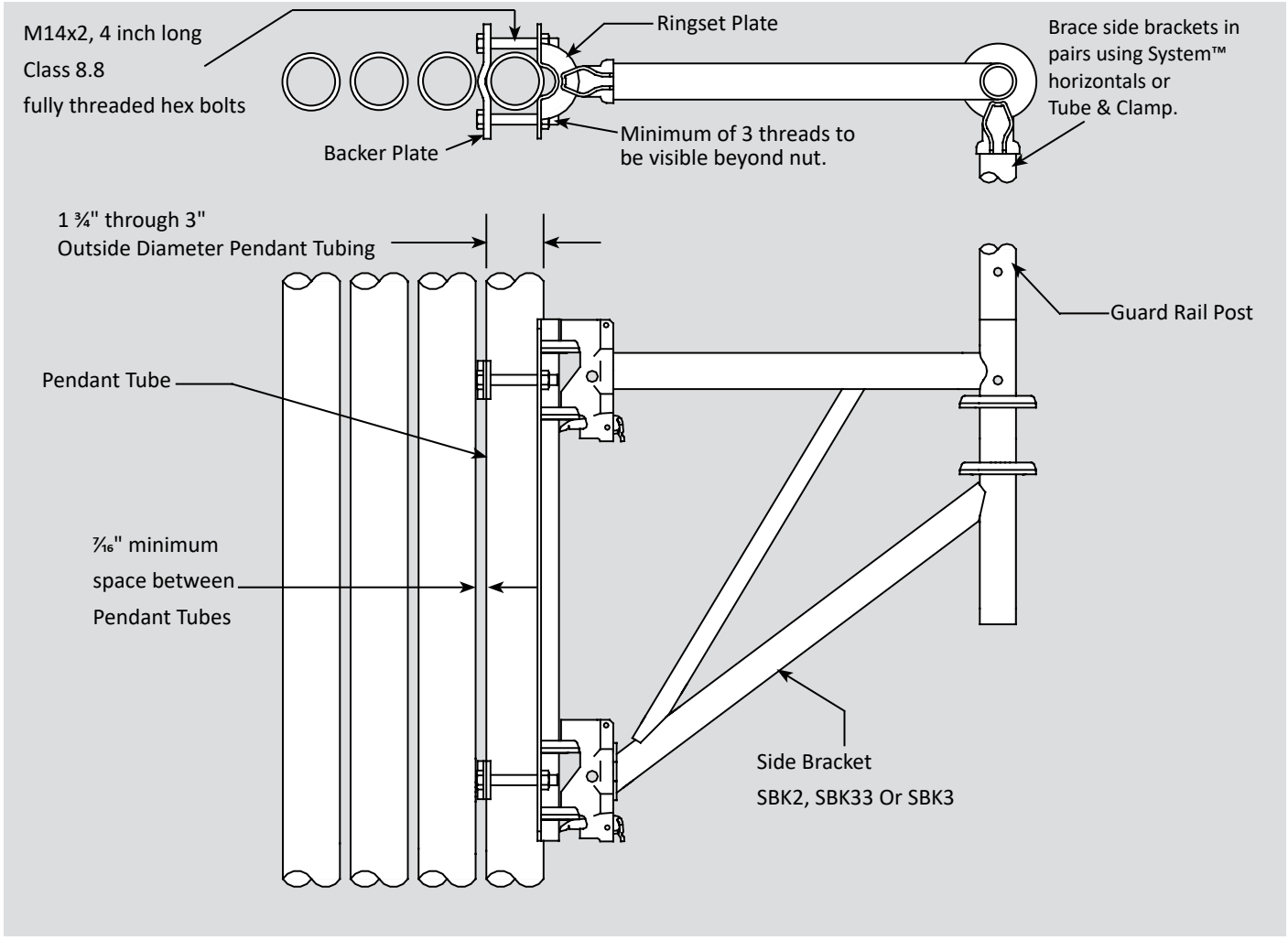


Assembly Details

Pendant Adapter Bracket



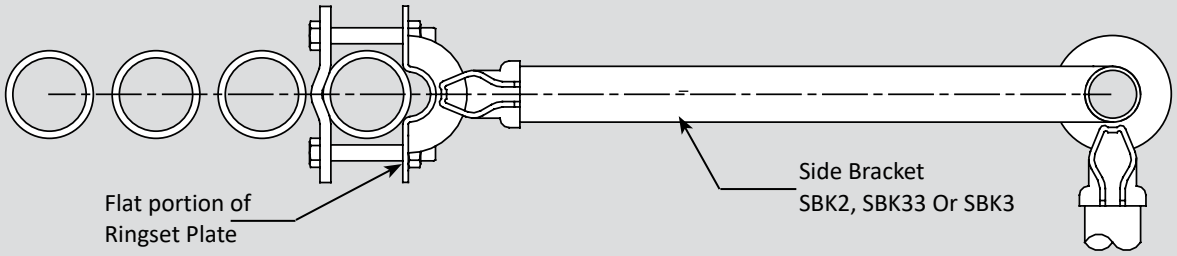
Torque: 60 ft-lb
Load Capacity: 500 lb



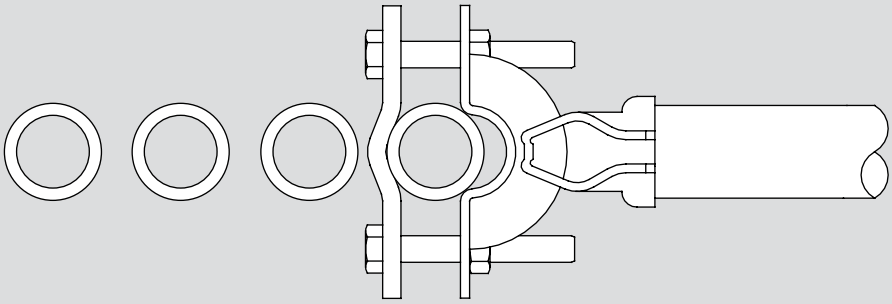
Assembly Details

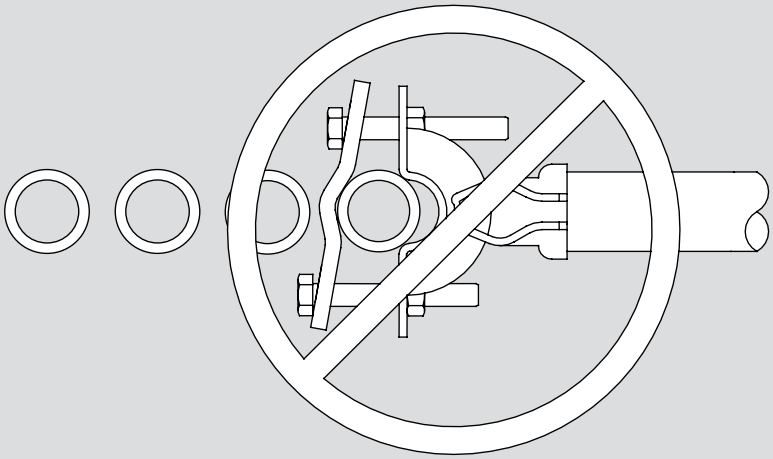
Pendant Adapter Brackets for Boiler Applications

Install side bracket perpendicular to the flat portion of the Ringset Plate. Contact BrandSafway Engineering for non-perpendicular applications.



Install backer plate parallel with ringset.

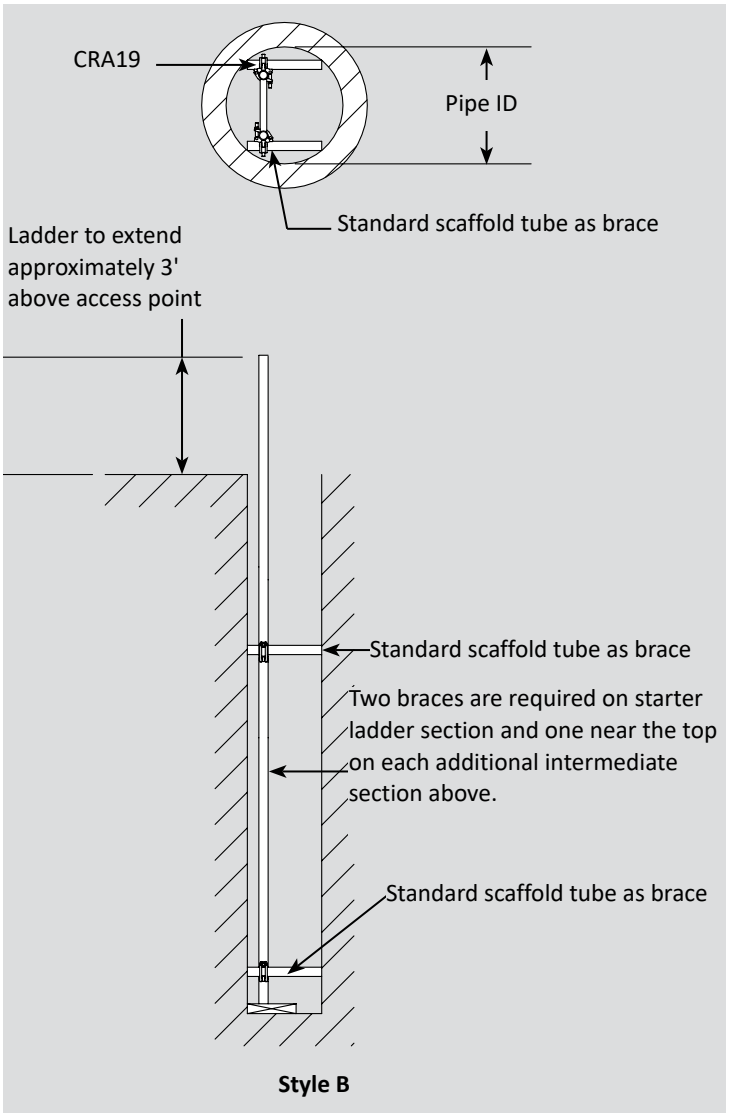




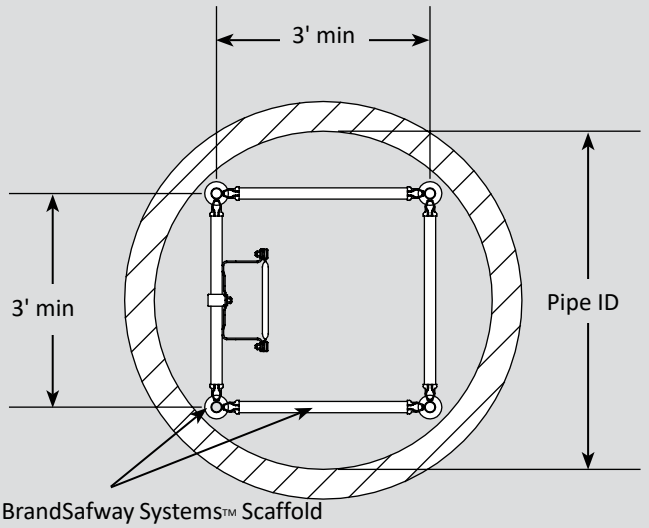
Assembly Details

Pipe Access Ladder Installation

Pipe ID in	Use	Style
57" and greater	SAUB or LTUBB SAU3 or LTUB4 SAU6 or LTUB7	A
Under 57"	SALCS218 SALCS318 SALCS618 SALCS212 SALCS312 SALCS612	B



Style B

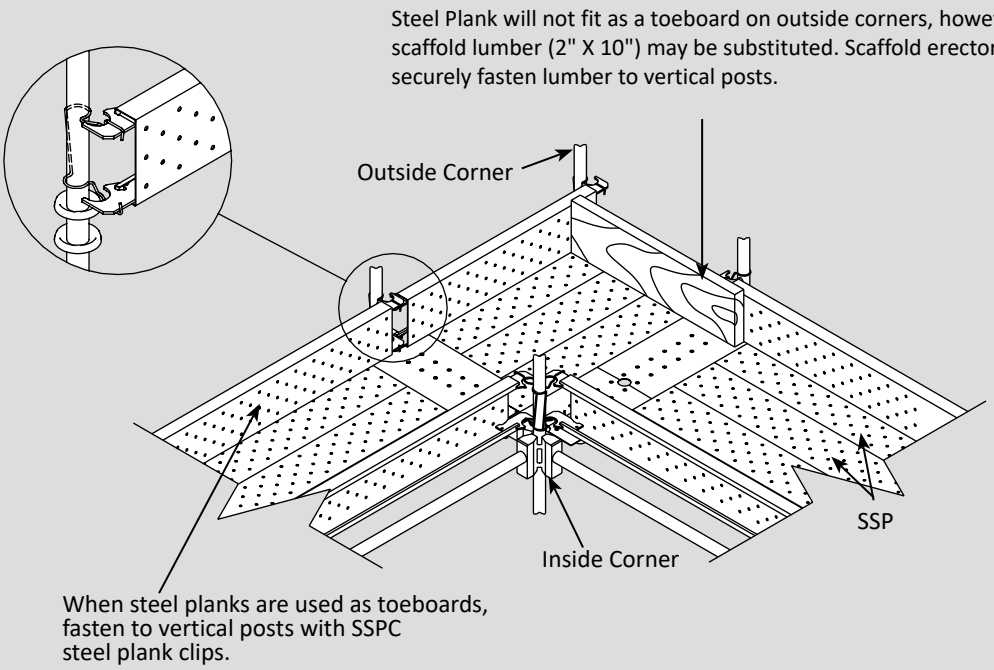


Style A

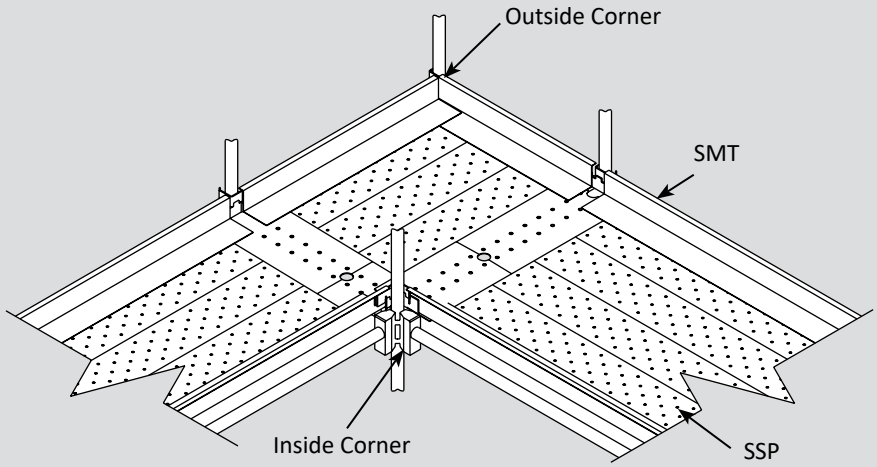
Contact BrandSafway Engineering for Style B Ladders exceeding 50 feet.

Assembly Details

Typical Toeboard Arrangements



Steel Plank (SSP) with Steel Plank Clip (SSPC)

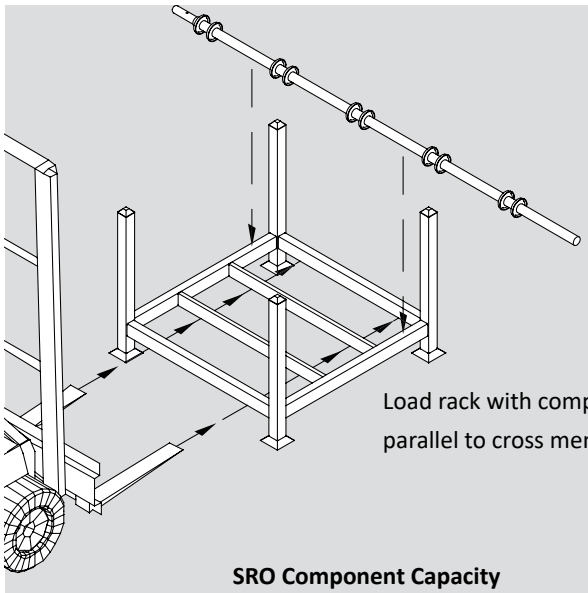


Metal Toeboards (SMT)

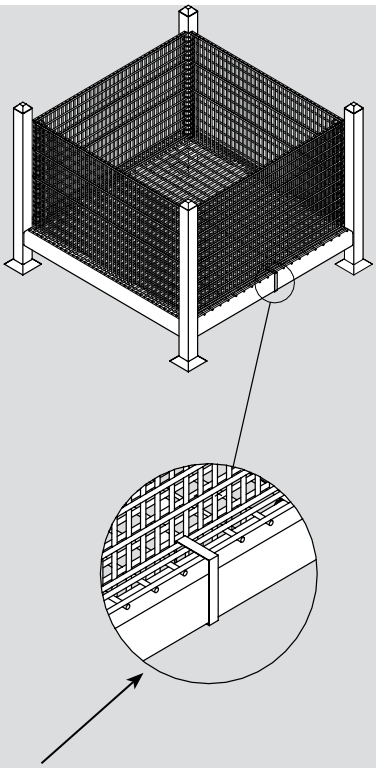
Assembly Details

SRO/SRB Assembly

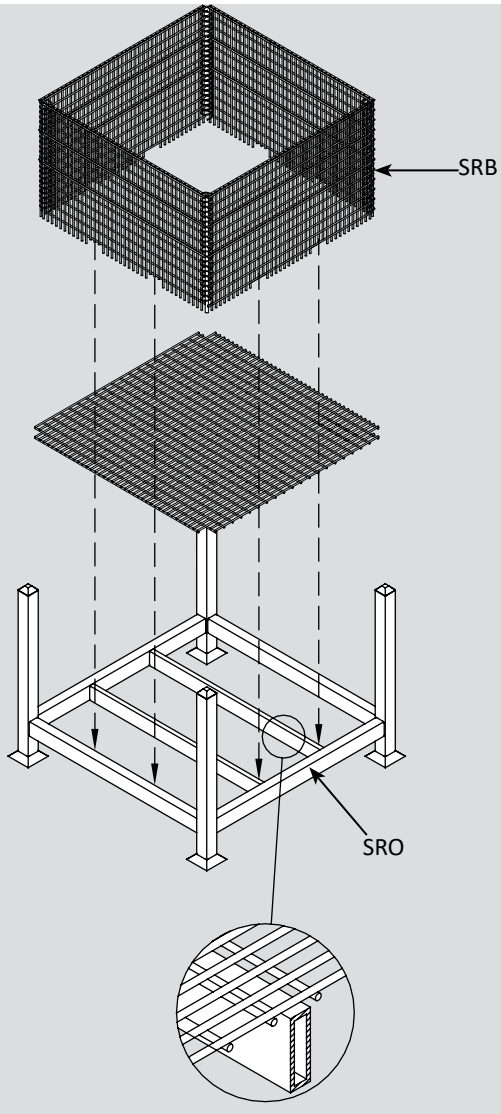
Rack Component Capacity	
Part No.	**SRO Capacities**
SSC30	250*
SVP_	125
SBR_	100
SHR_	100
SSP_	64
SHD_	100
SDW_	100
SDC_	100
STR7_	12
SBF5 through 6	30
STB6 through 7	50
STB8 through 18	25
* Capacity when two SSC30 are coupled together.	



SRO Component Capacity

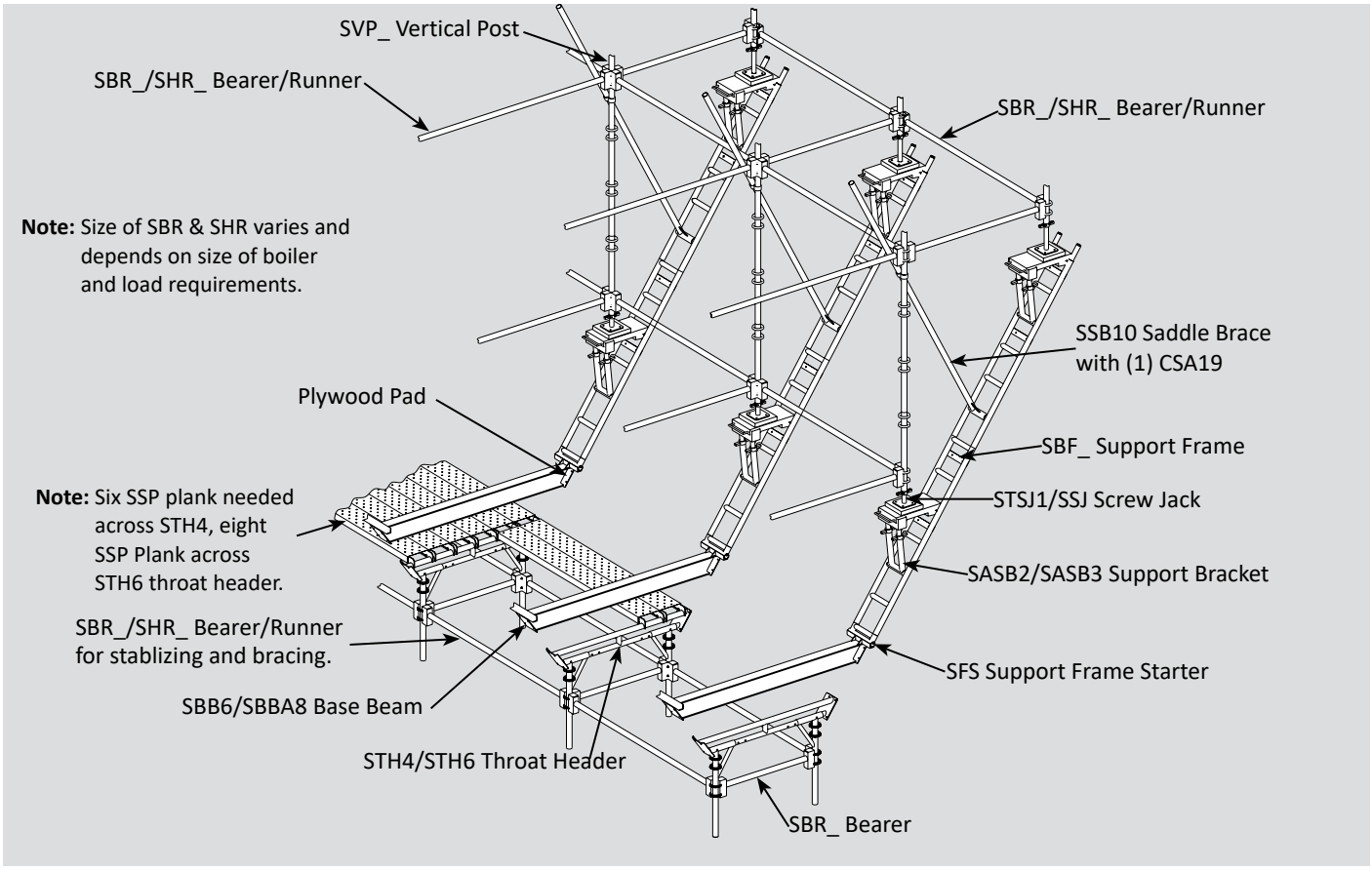


Steel Banding on 2 Opposite Sides

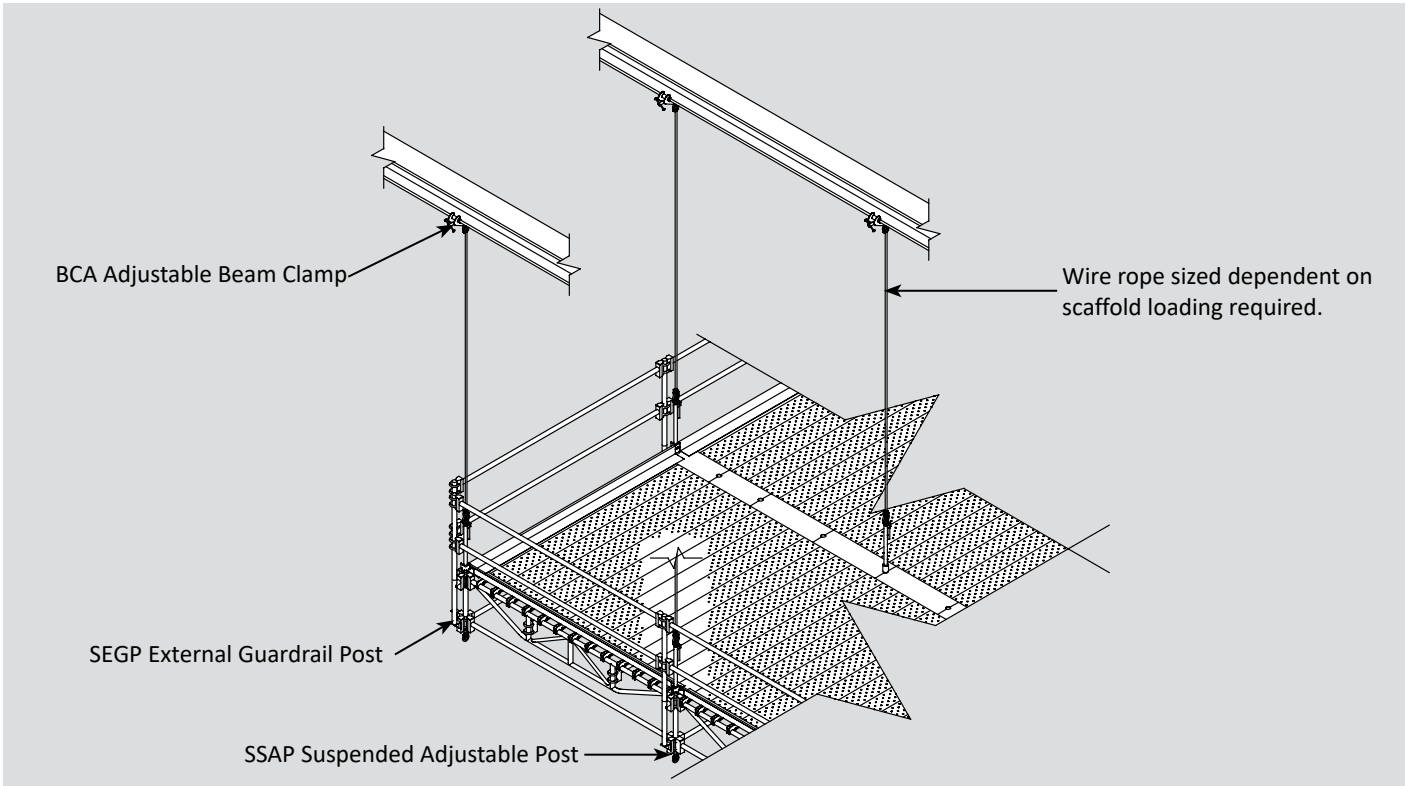


Assembly Details

Boiler Throat Closure & Founding System



Suspended Adjustable Platform



Tying & Bracing and Assembly Loads

Section 4

Quantities and location of ties, guys and braces will vary depending upon the scaffold size, weight, shape and load conditions. The following general guidelines indicate minimum BrandSafway best practices and are not all inclusive. When designing scaffolds with unique configurations or special loading conditions, consult with BrandSafway Engineering or a qualified engineer familiar with scaffold design prior to design finalization. A qualified engineer may reduce the number of vertical diagonal braces if it can be shown that the resulting scaffold design complies with applicable codes and generally accepted scaffold engineering practices.

When designing a square or rectangular scaffold, BrandSafway recommends a horizontal diagonal be included in the base design. This diagonal will aid the erector in providing a square scaffold as well as assuring hook on plank and deck will fit properly.

Unless otherwise noted in this chapter, all vertical diagonals can be SDW, SDC or Tube and Clamp with CSA19's. Horizontal diagonals can be SHD or Tube and Clamp with CRA19's. When doing so, consider the load capacity of these components and their effect on the completed scaffold. See page 74.

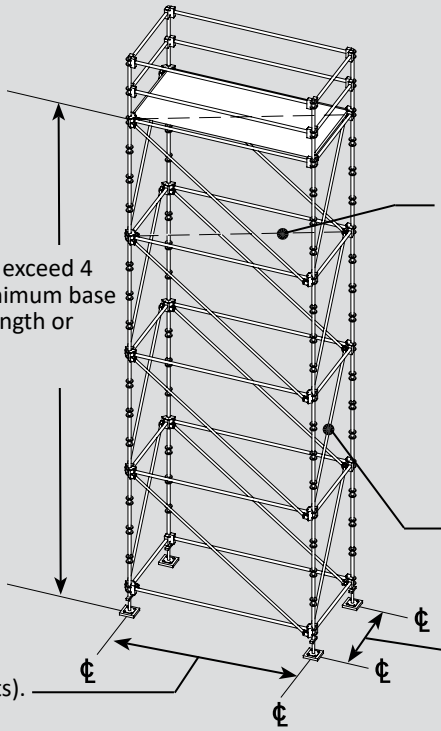
Assure ties, stand-offs, or guys are located at runner and bearer levels.

Note: Proper access and platform toeboards are required on all scaffolds. These items have been eliminated from the illustrations in this section for clarity purposes.

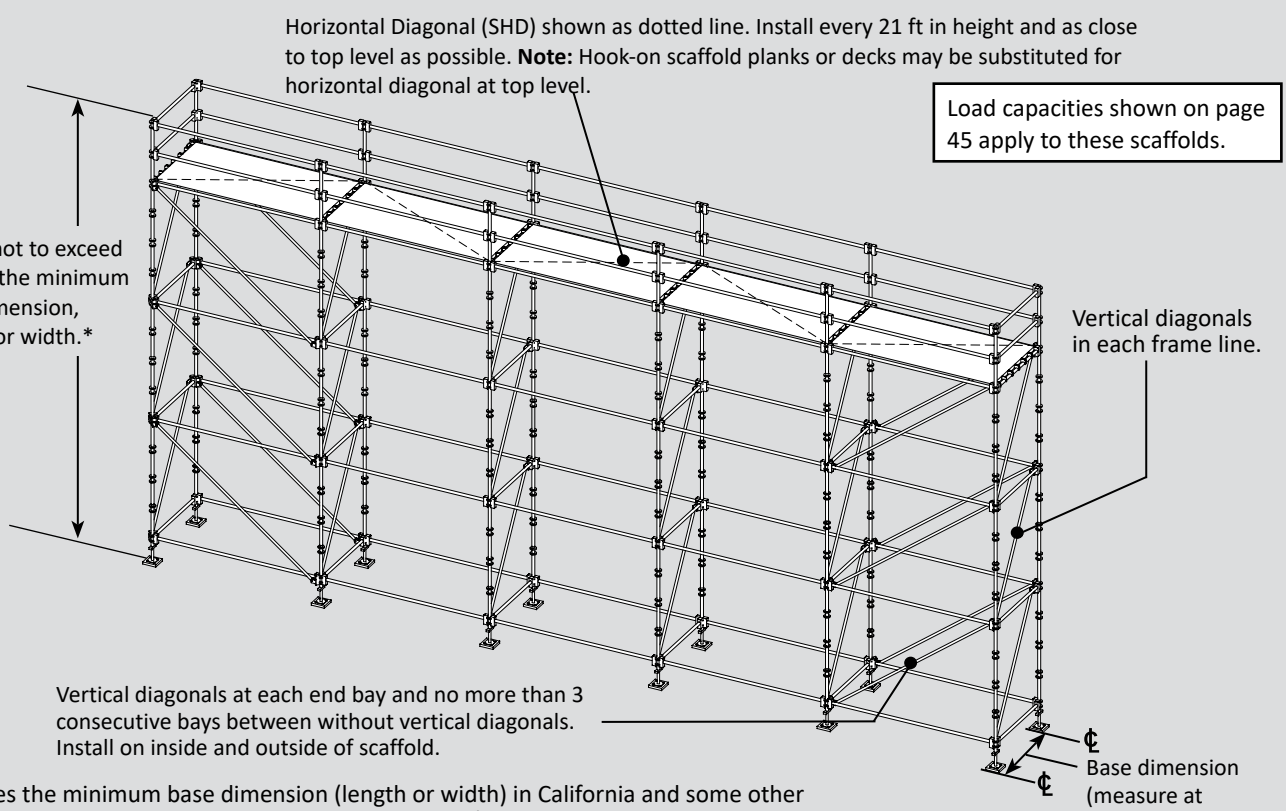
Tying, Bracing and Assembly Loads

Free Standing Scaffold

Load capacities shown on page 45 apply to these scaffolds.



Single Bay Bracing Where Ties or Guy Wires are Not Required



* Three times the minimum base dimension (length or width) in California and some other jurisdictions. Install vertical diagonals on posts at bearer/runner connections.

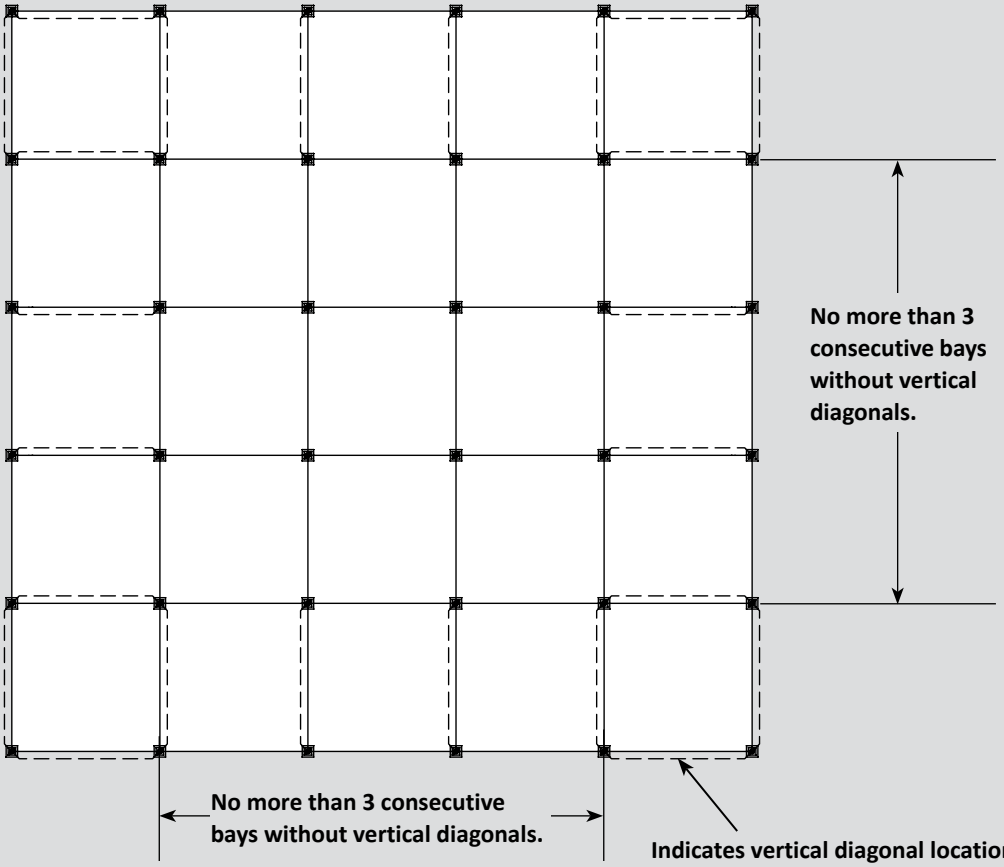
When designing free standing scaffolds, consider any horizontal loads, including but not limited to wind.

Multi-Bay Bracing Where Ties or Guy Wires are Not Required

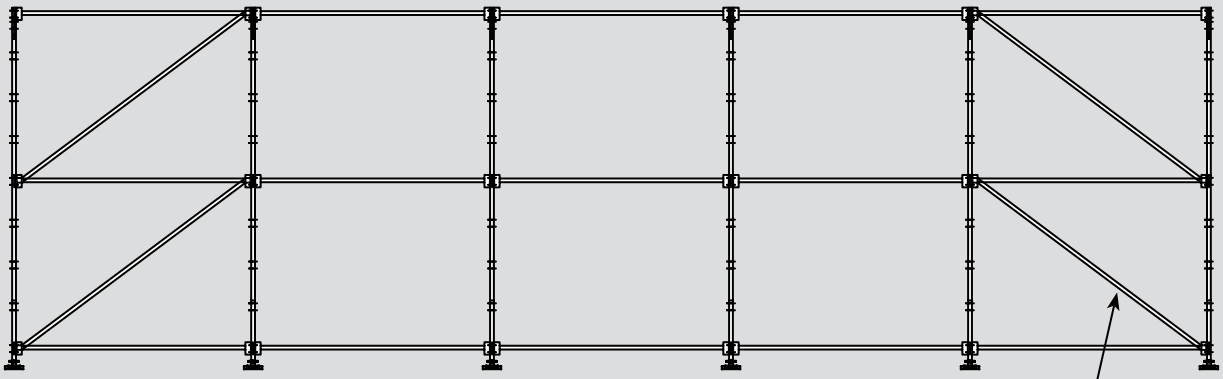
Tying & Bracing

Area Scaffold (Free Standing)

Load capacities shown on page 45 apply to these scaffolds.



Plan View

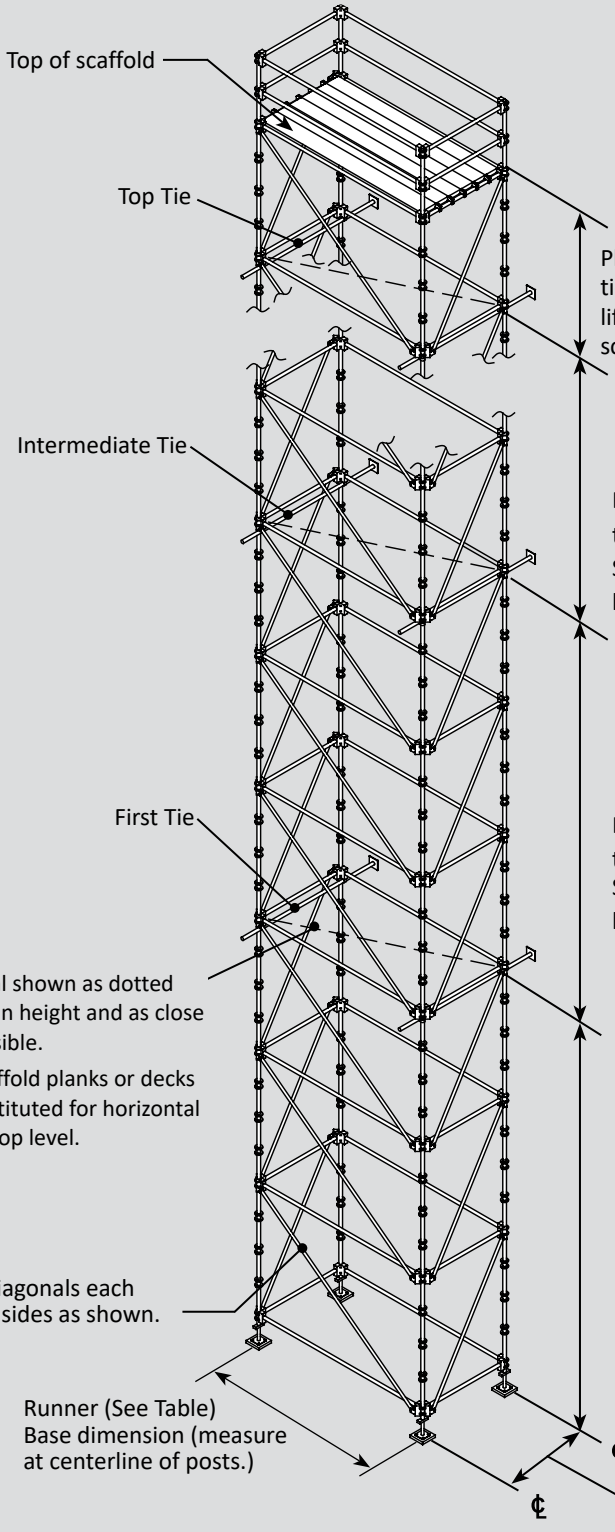


Front View

Tying, Bracing and Assembly Loads

Wall Tied Scaffold - Single Bay Bracing - Diagonal on Three Sides

Tie Distance	Allowable Compressive Load Per Leg	
	7' Runner or Shorter	10' Runner
7'	3,800 lb	3,500 lb
14' or 21'	2,400 lb	1,600 lb
For bay sizes between 7' to 10', values may be interpolated.		

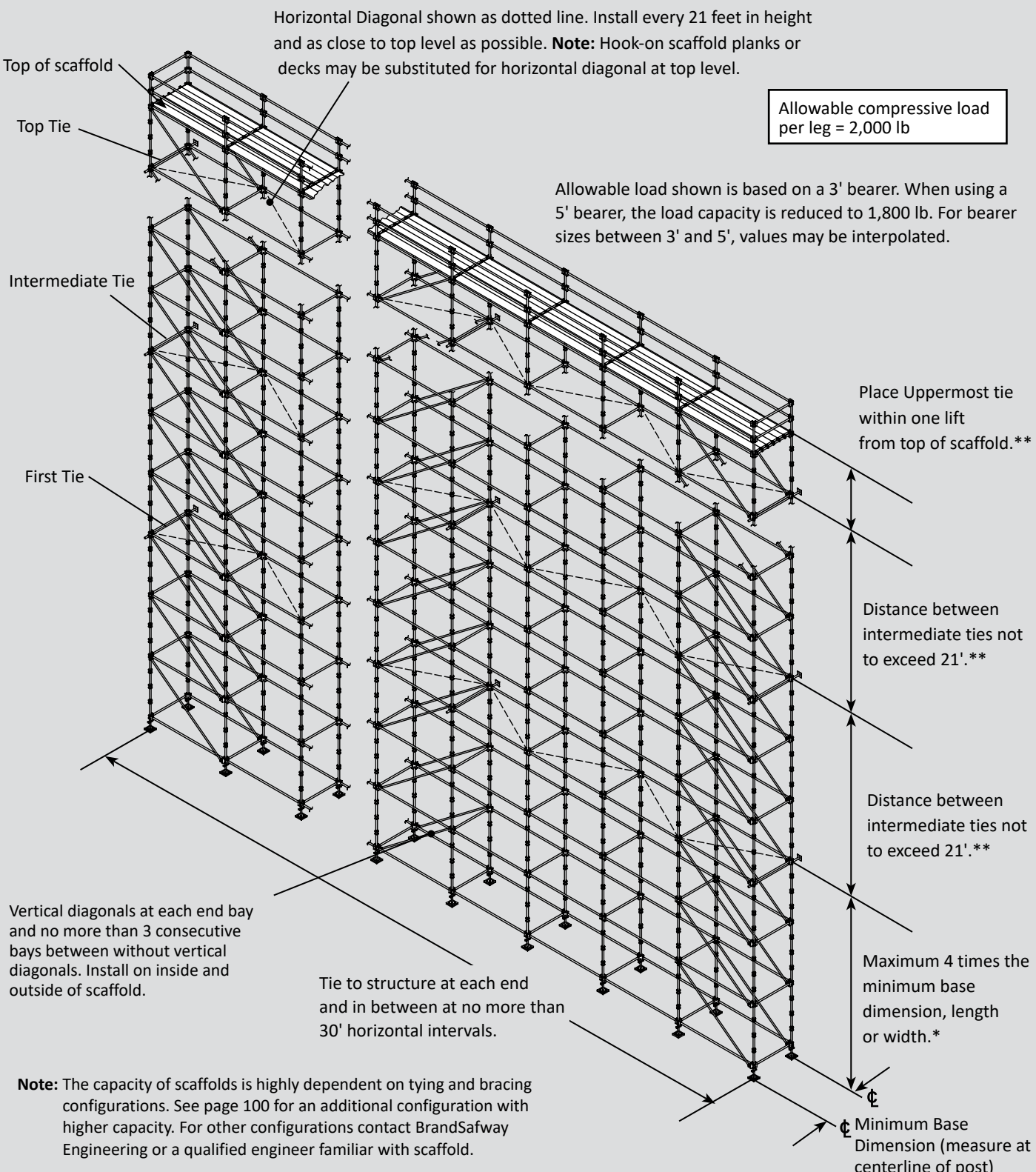


Note: Place all ties as close to horizontals as possible.

* Three times the minimum base (length or width) in California and some other jurisdictions.

** Where field conditions preclude ties at these levels follow BrandSafway Systems™ Scaffold Safety Guidelines. Install vertical diagonal on posts at bearer/runner connections.

Wall Tied Scaffold - Multi-Bay Bracing



Note: The capacity of scaffolds is highly dependent on tying and bracing configurations. See page 100 for an additional configuration with higher capacity. For other configurations contact BrandSafway Engineering or a qualified engineer familiar with scaffold.

Note: All ties must be placed as close to horizontals as possible.

* Three times the minimum base dimension in California and some other jurisdictions.

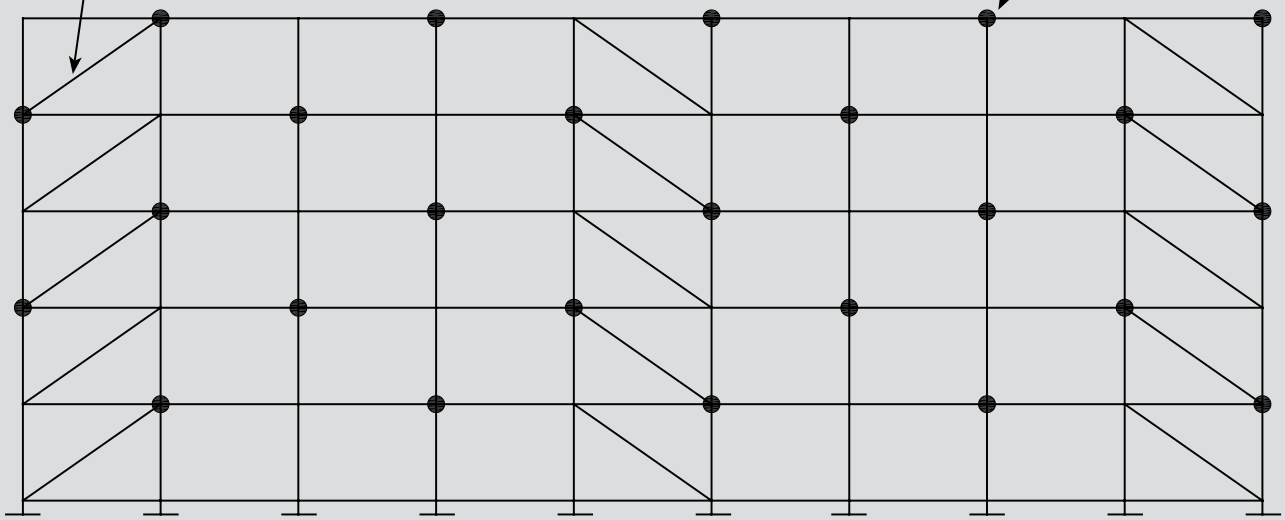
** Where field conditions preclude ties at these levels follow BrandSafway Systems™ Scaffold Safety Guidelines. Vertical diagonal must be installed on posts at bearer/runner connections.

Wall Tied Scaffold - Multi- Bay Bracing (Staggered Ties)

Allowable compressive load per leg = 3,000 lb

Vertical diagonals at each end bay and no more than 3 consecutive bays between without vertical diagonals. Install on inside and outside of scaffold.

Indicates tie location

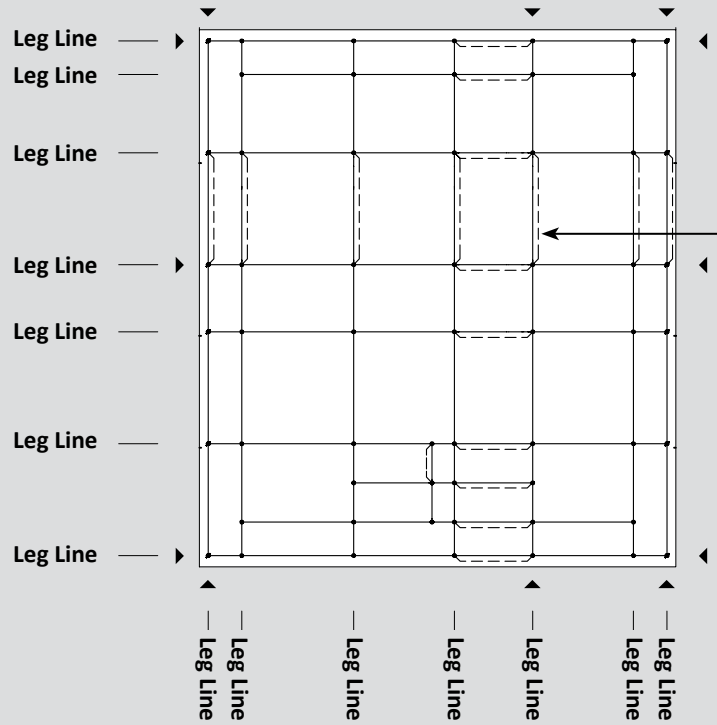


Scaffold Elevation

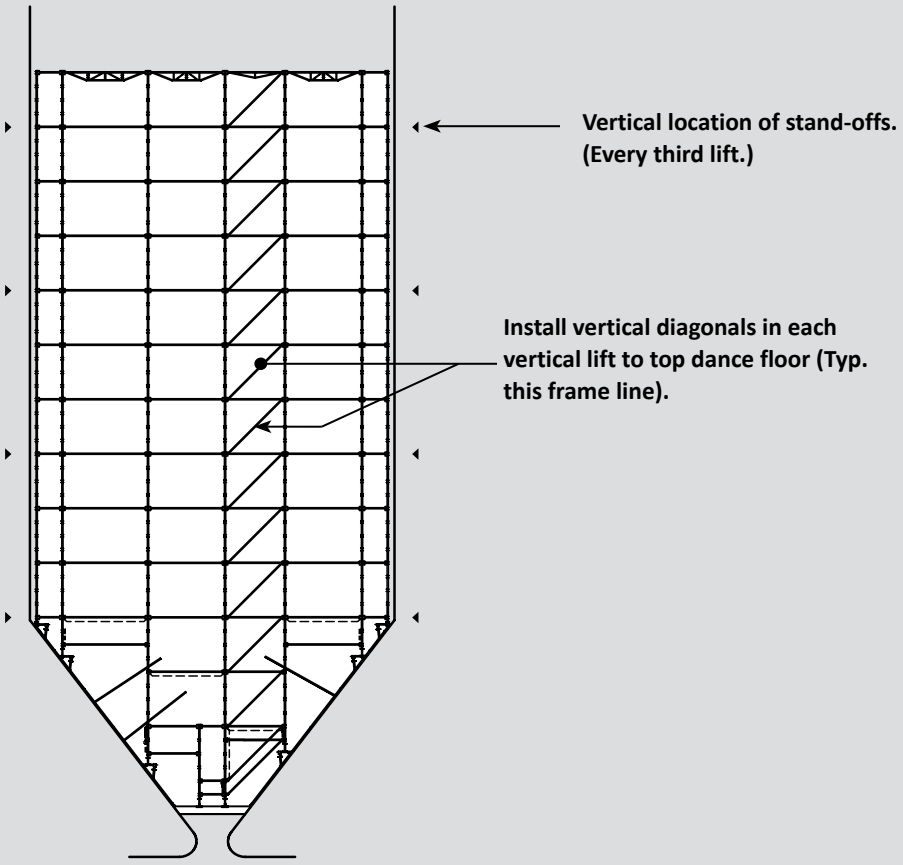
Note: All ties placed as close to horizontals as possible. Install vertical diagonals on post at bearer/runner connections.

Captured 4-Sides Area Scaffold (Boiler/Atriums)

Load capacities shown on page 45 apply to these scaffolds

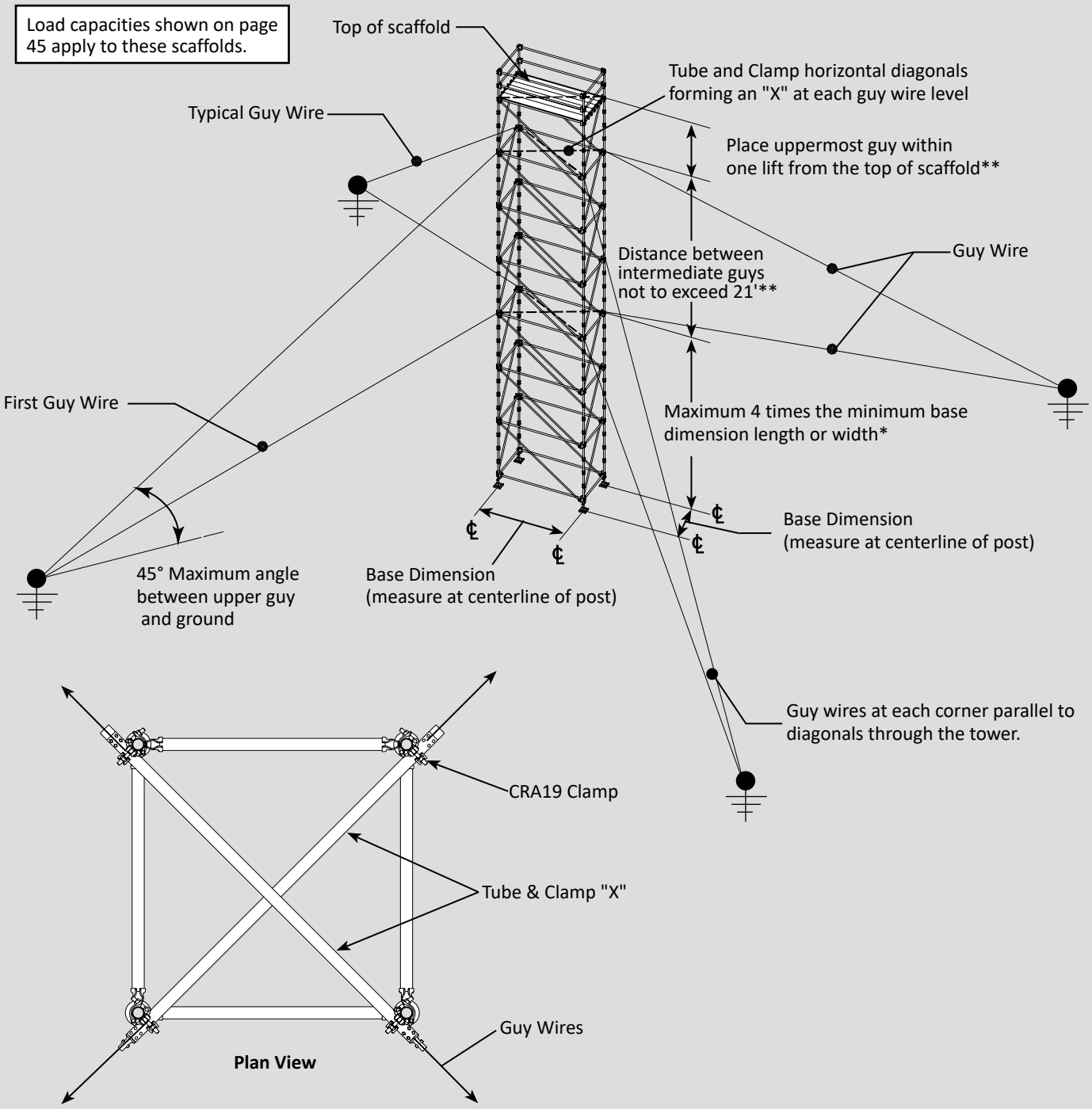


Plan View



Section View

Guy Wire Restrained Scaffold Tower - Single Bay



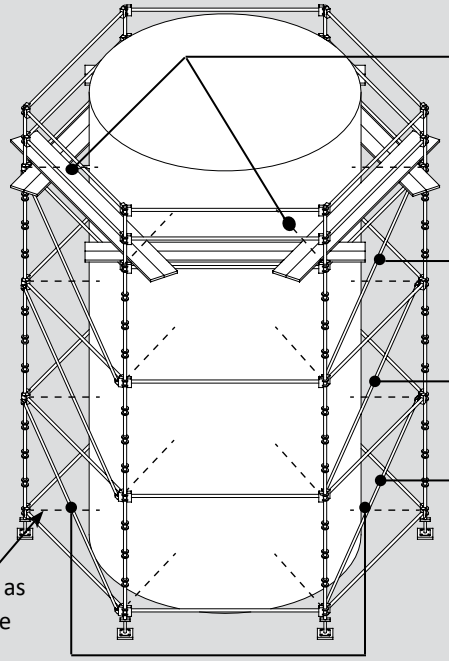
Note: Take extreme care when designing a tower guyed to the anchors below. The applied vertical and horizontal loads and wire pre-tensioning loads must be determined and included in the scaffold design. Consult BrandSafway Engineering or a qualified engineer familiar with scaffold design. Place all guys at fully braced levels only.

* Three times the minimum base dimension (length or width) in California and some other jurisdictions.

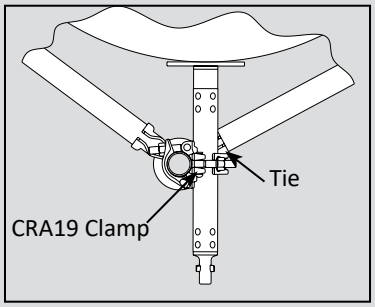
** Where field conditions preclude ties at these levels follow BrandSafway Systems Scaffold Safety Guidelines. Install vertical diagonals on posts at bearer/runner connections. See page 96 for vertical and horizontal diagonal bracing.

Circular Scaffold Tying and Bracing

Allowable compressive load per leg = 1,800 lb



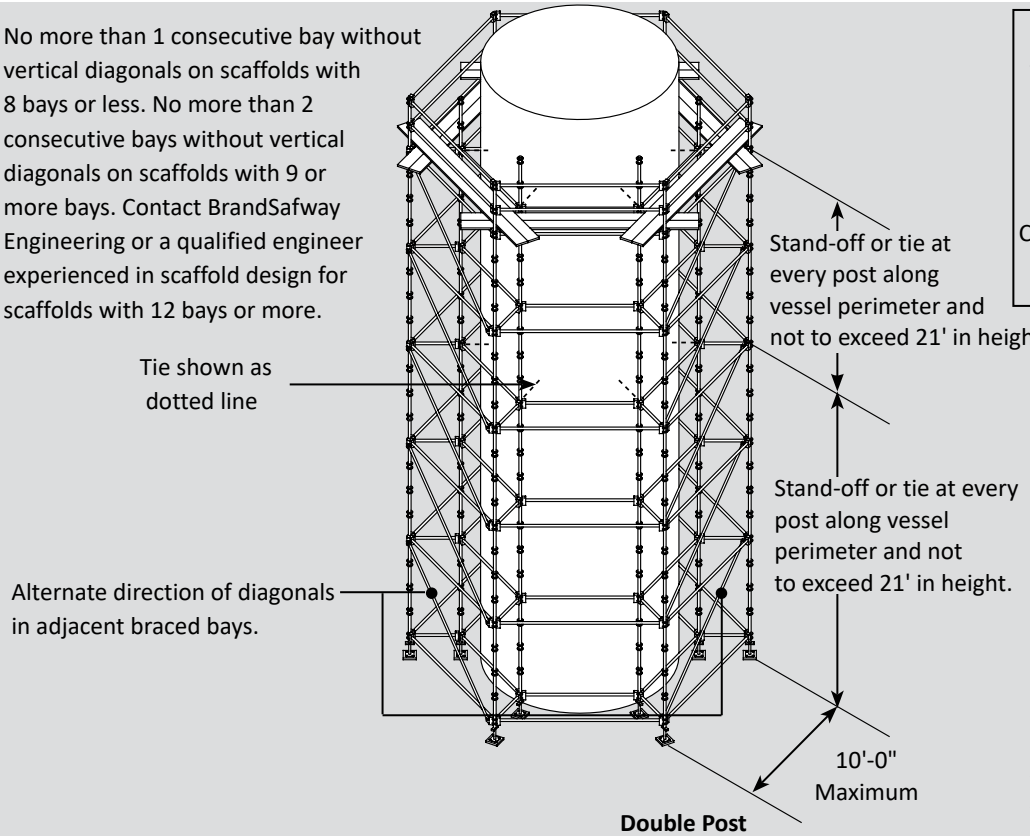
Single Post



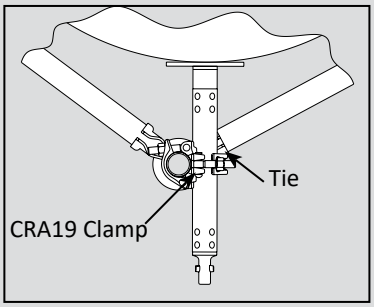
Tie-Detail Plan View

Guardrails, toeboards and access not shown for clarity

No more than 1 consecutive bay without vertical diagonals on scaffolds with 8 bays or less. No more than 2 consecutive bays without vertical diagonals on scaffolds with 9 or more bays. Contact BrandSafway Engineering or a qualified engineer experienced in scaffold design for scaffolds with 12 bays or more.



Double Post



Tie-Detail Plan View

Allowable compressive load per leg = 2,000 lb

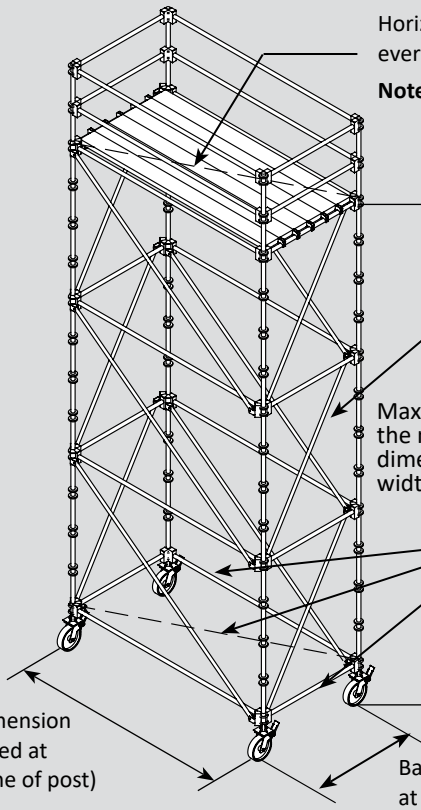
Guardrails, toeboards and access not shown for clarity

Tying & Bracing

Rolling Scaffold Bracing

Allowable compressive load per leg = 900 lb

See page 50 for additional bracing to increase capacity.



Horizontal Diagonal shown as dotted line. Required at base, every 21 feet in height and as close to top level as possible.

Note: Hook-on scaffold planks or decks may be substituted for horizontal diagonal at top level.

Same bracing requirements as for single bay free standing scaffold tower. See page 96.

Maximum 4 times the minimum base dimension* (length or width)

Install runners, bearers and horizontal diagonal bracing at lowest ring set.

Base dimension (measured at centerline of post)

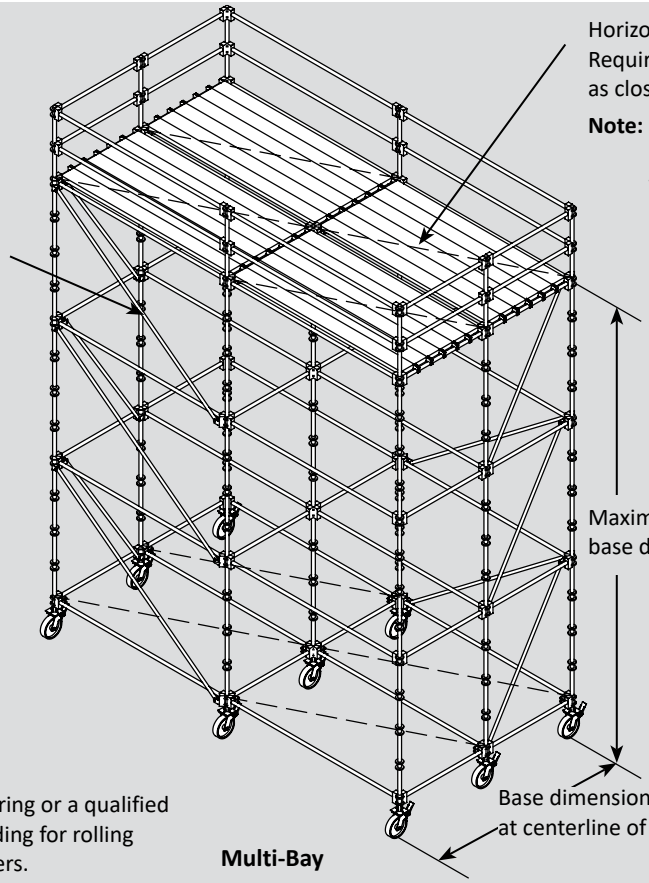
Base dimension (measured at centerline of post)

Single Bay

Allowable compressive load per leg = 900 lb

See page 50 for additional bracing to increase capacity.

Vertical diagonals at all levels in at least one bay on each outer vertical surface of the tower.



Horizontal Diagonal shown as dotted line. Required at base, every 21 feet in height and as close to top level as possible.

Note: Hook-on scaffold planks or decks may be substituted for horizontal diagonal at top level.

Maximum 4 times the minimum base dimension* (length or width)

*Three times in California and some other jurisdictions. Always check local code.

Base dimension (measured at centerline of post)

Note: Consult BrandSafway Engineering or a qualified engineer familiar with scaffolding for rolling towers with more than 9 casters.

Multi-Bay

Knee-Outs Bracing & Tying

Part No.	Effective Width	Allowable Concentrated Load
	ft-in	lb
SKO3	3'-0"	3,325
SKO45	3'-9"	2,650

Allowable concentrated load for knee-out brackets (SKO) are shown on page 63. Loads in table above may be used when knee-out brackets are installed in symmetrical scaffolds as shown in figure 1 and 2, and in non-symmetrical scaffolds when auxiliary bracing is installed to prevent overturning and racking. See figure 3.

Symmetrical Scaffolds with Knee-Out Brackets

Typical Boiler Scaffold (Section View)

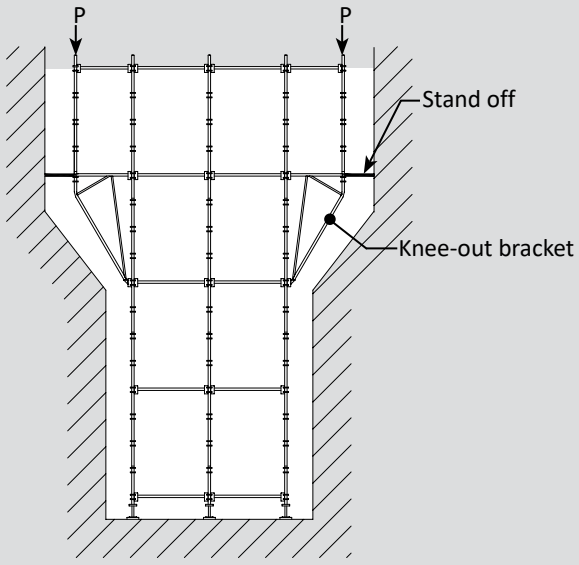


Figure 1

Typical Circular Scaffold (Section View)

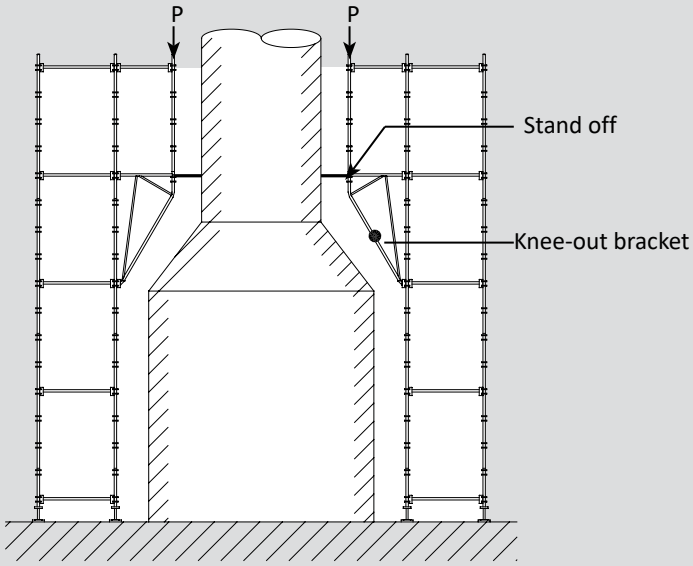


Figure 2

Non-Symmetrical Scaffolds with Knee-Out Brackets

Scaffold Run Along Set-back Surface (End View)

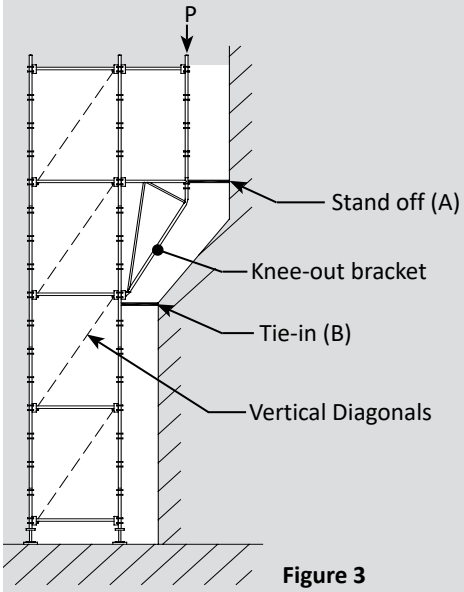


Figure 3

Non-symmetrical assemblies similar to figure 3 require a stand-off at A and a tie-in at B on each frame line with knee-out brackets. In addition, vertical diagonals may be requred in each frame plane. Contact BrandSafway Engineering or a qualified engineer familiar with scaffold design prior to erecting such non-symmetrical scaffolds.

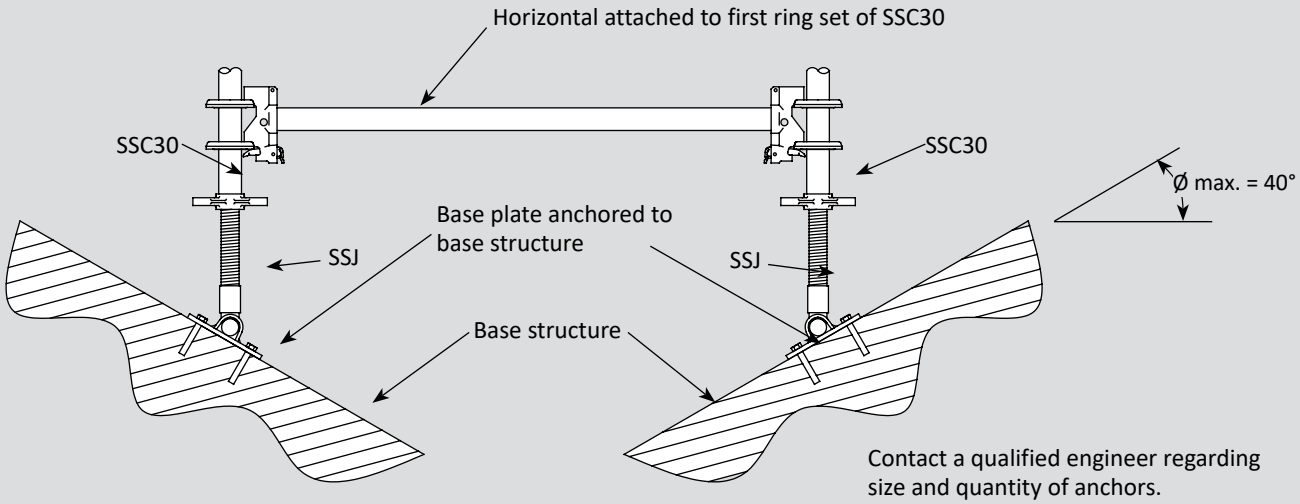
Location of standard ties/stand-offs must comply with the 4:1 height-to-minimum base width ratio*. Allowable concentrated loads for knee-out brackets installed on scaffolds are shown on page 63.

Note: All scaffolds with knee-out brackets also require bracing and tying as shown in applicable sections of this manual.

*Three times the minimum base dimension (length or width) in California and some other jurisdictions.

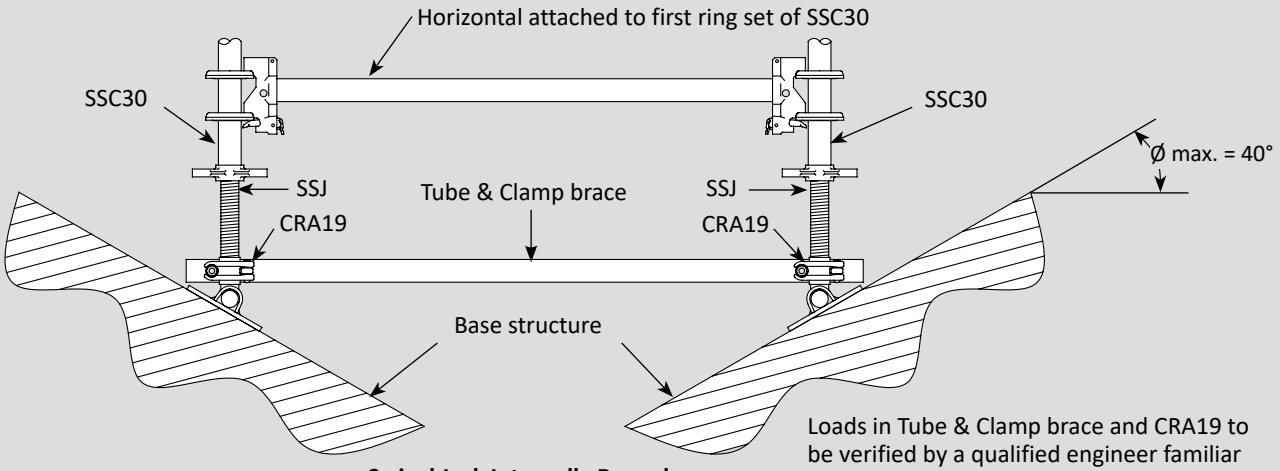
Tying & Bracing

Swivel Jack (SSJ) Bracing



Contact a qualified engineer regarding size and quantity of anchors.

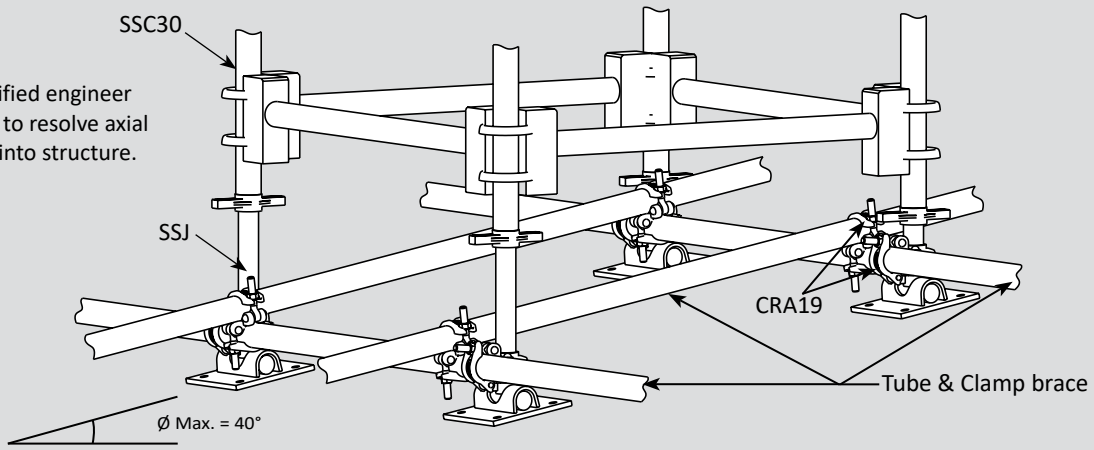
Swivel Jack Anchored to Base Structure



Loads in Tube & Clamp brace and CRA19 to be verified by a qualified engineer familiar with scaffold design.

Swivel Jack Internally Braced

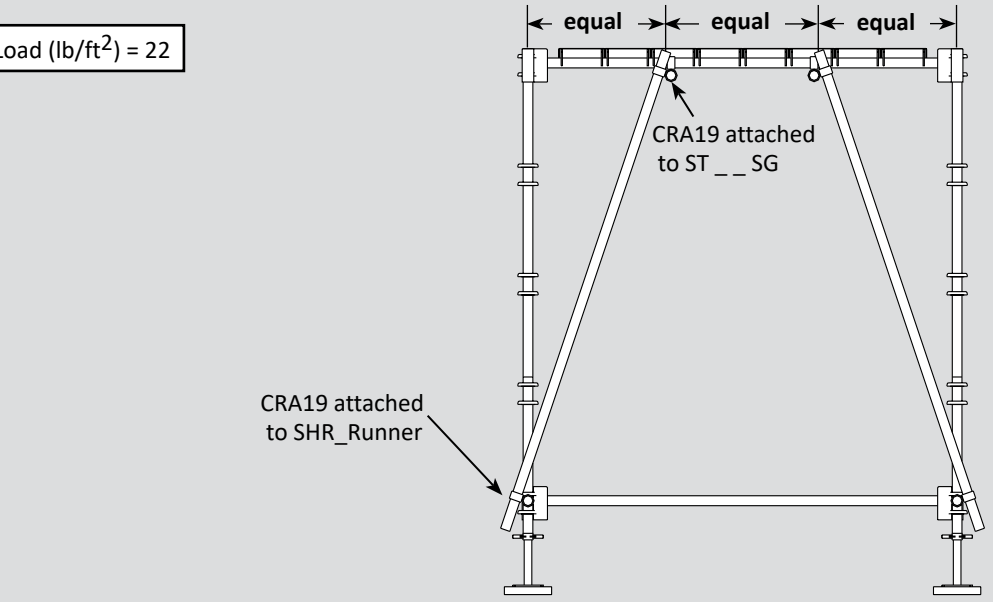
Contact a qualified engineer regarding how to resolve axial loads in tubes into structure.

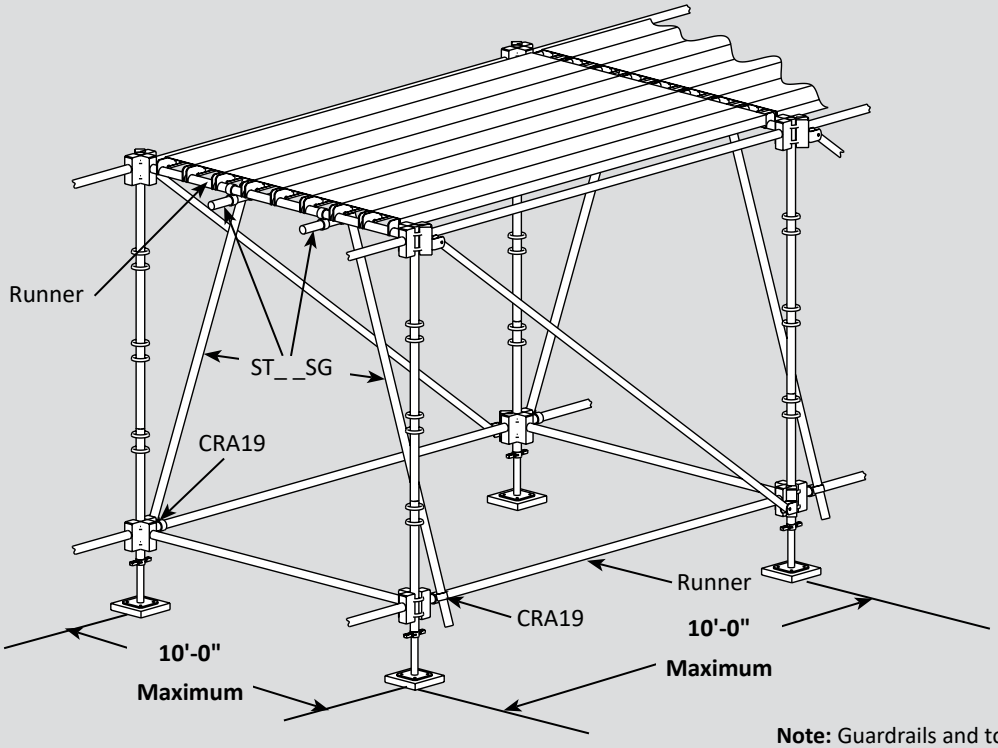


Swivel Jack Bracing Parallel to Slope

K-Bracing Runners

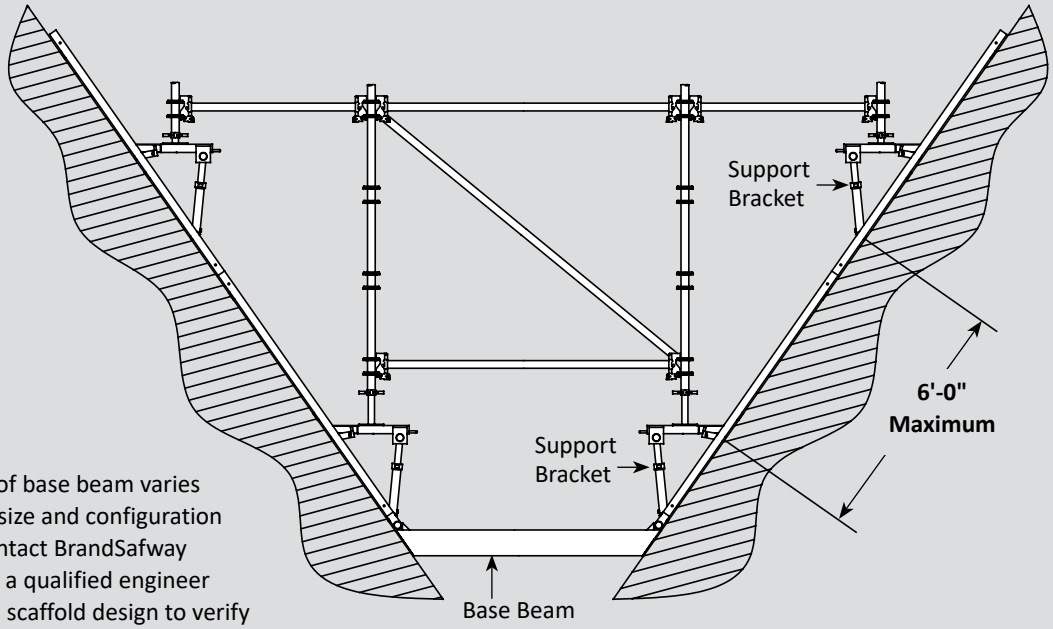
Allowable Runner Load (lb/ft^2) = 22





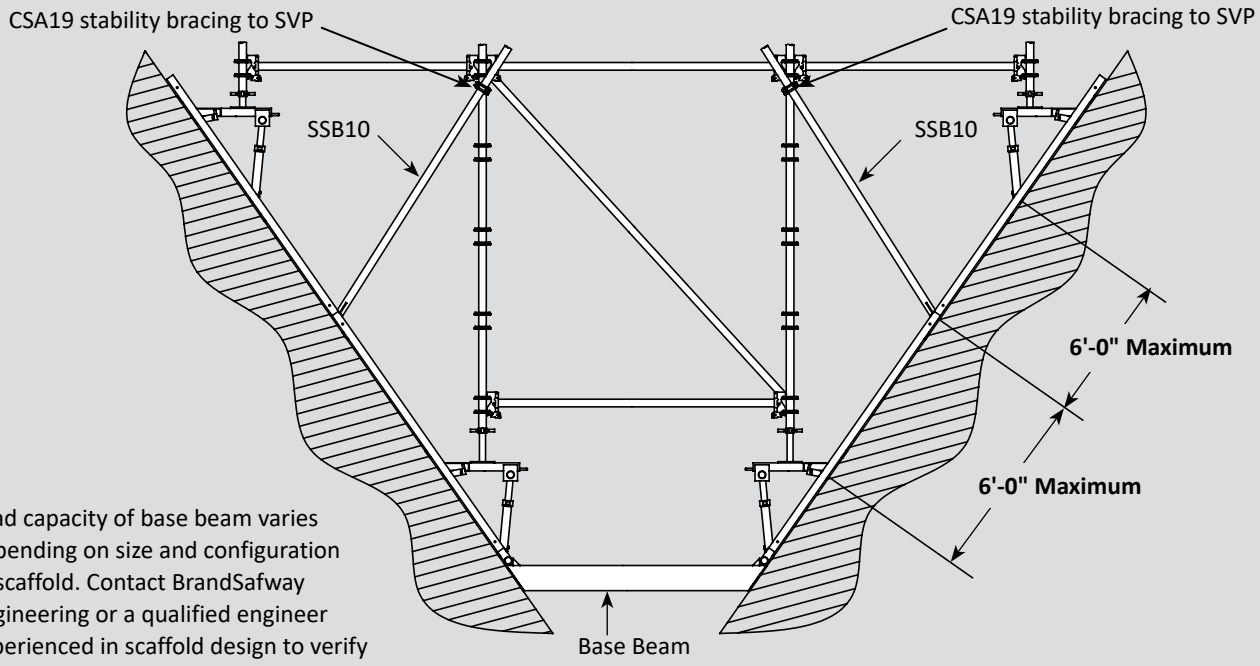
Note: Guardrails and toeboards not shown for clarity.

Boiler V-Bottom Scaffold



Load capacity of base beam varies depending on size and configuration of scaffold. Contact BrandSafway Engineering or a qualified engineer experienced in scaffold design to verify base beam capacity.

SSB10 Not Required



Load capacity of base beam varies depending on size and configuration of scaffold. Contact BrandSafway Engineering or a qualified engineer experienced in scaffold design to verify base beam capacity.

SSB10 Required

Contact BrandSafway Engineering or a qualified engineer familliar with scaffolding to determine adequacy of base beam and boiler support frames (SBF_).

Notes

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BRAND SAFWAY™

With a commitment to safety as its foremost value, BrandSafway was created when Brand Energy and Infrastructure Services and Safway Group combined in 2017. BrandSafway is a portfolio company of Clayton, Dubilier & Rice.

Brand Industrial Services, Inc.
1325 Cobb International Dr. Ste A-1
Kennesaw, GA USA 30152
Toll free: 800 558 4772

For more information, visit our website at **www.brandsafway.com**

ORN 203 Rev. E 7/16