INSTANTLOCK
SYSTEM SCAFFOLD

INSTANTLOCK 2 SYSTEM SCAFFOLD COMPONENT TECHNICAL MANUAL

Engineering Approval: Lance Smith
Manual Release Date: 05/17/19
Revision: B

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INTRODUCTION

COMPATIBILITY OF INSTANTLOCK 2

InstantLock 2 System Scaffold is designed and engineered by Next Generation Scaffold (NextGen) to be compatible with pin and ring, and standard tube and clamp components (i.e., clamps, poles, ladders and ladder brackets) that are currently available within the scaffold industry.

These tube and clamp components are generally used:

- As tie-offs when needed for seismic considerations.
- When needed to transition horizontally to get around obstacles.
- When needed to transition vertically to get around an interference.
- As ladders and ladder brackets for access to work platforms.
- As needed for structural bracing and reinforcement.

GENERAL ERECTION CRITERIA

InstantLock 2 material is designed by engineers to comply with OSHA and CAL-OSHA specifications associated with supported system scaffolds, along with necessary tube and clamp criteria.

NextGen expects all InstantLock 2 users to:

1. Abide by all Federal, State and local regulations governing scaffold construction and use.
2. Erect, modify or dismantle scaffolding using only qualified and competent personnel with adequate supervision.
3. Provide competent and qualified supervision who can inspect and sign off on each scaffold before authorization is given for general use.
4. Follow common safety guidelines, including: pre-job briefings, procedure compliance, tagging, flagging, wearing of proper PPE, weight-loading restrictions, vertical leg placement, use of diagonal bracing, horizontal wraps, proper use of handrails, mid-rails, toe boards, safety netting, screw jacks, ladders, metal or wood decking, etc.
5. Obtain and follow engineered drawing(s) when required.

SPECIAL CONSIDERATIONS

Many InstantLock 2 scaffold components telescope, swivel, slide or hinge. Use caution when passing to other workers, transporting, and installing these items.

Ensure all items containing locks or pins are secured before handling, transporting, or passing these items to another worker.

STAGING PLATFORMS

- All staging platforms must have an engineer's involvement.
- The scaffold must be analyzed in accordance with the InstantLock 2 System Scaffold Component Technical Manual to ensure all components are within the set limits.
- The maximum allowable load and criteria for the structure must be clearly marked at any/all entrances to the platform.
- All conditions must be clearly marked at the inspection tag and enforced to ensure overloading of the scaffold does not occur.

Shipping and Receiving:
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Website: www.nextgenscaffold.com

All material must be inspected prior to use! See inspection guidelines on page 87.

INTENDED USE OF INSTANTLOCK 2 SYSTEM SCAFFOLD

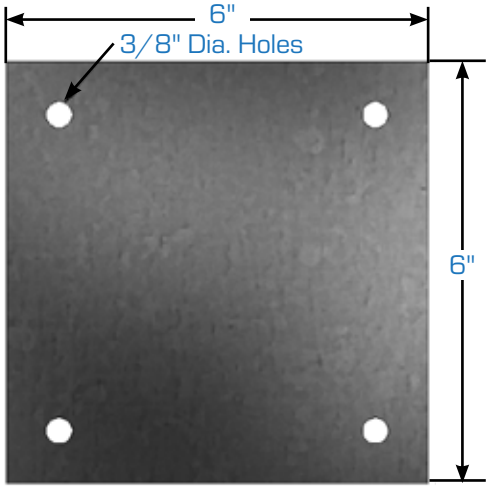
1. Unless otherwise stated, all load data presented in this manual includes the OSHA 4:1 safety factor.
2. All load data presented in this manual is for downward or compressive loading only, unless otherwise stated.
3. InstantLock 2's scaffold material, when constructed for normal use, is not designed to be up- or side-loaded in excess of OSHA and ANSI requirements. When conditions require special loading, extra design features must be added to ensure proper stability.
4. Once installed and completed, scaffolding should be considered part of the customer's plant equipment. Abuse or mistreatment of the scaffold material will not be tolerated.
5. The scaffold material should be inspected for damage and replaced after any incident which could affect the integrity of the scaffold material, such as:
   - The scaffold comes into contact with any moving equipment, forklifts, trucks or trailers, and other types of mobile equipment.
   - The scaffold is affected by an unintended load, flanges or piping attached to a crane or come-along, objects dropped from above or swung in from the side, fall arrest incident, etc.
   - Excessive force is applied to the scaffold from abuse or accidental contact.
   - The material is modified in any way with a torch, saw or other equipment.
   - The material is affected from corrosive chemicals that remove the coating and/or damage the base metal.
   - The material is bent or otherwise damaged.
6. The end-user is responsible for ensuring their competent and qualified individuals and scaffold erection personnel are trained and fully understand the above requirements.
7. All end-users must be trained in the proper use of InstantLock 2 System Scaffold. This tech manual is provided as a reference for training. New users should examine the InstantLock 2 Building Tips section at the end of this manual.
8. Field testing of scaffold components shall not be conducted. Testing will be performed only by the manufacturer.
9. OSHA requires that inspections must be made by the scaffold builder and end-user.

All material must be inspected prior to use! See inspection guidelines on page 87.

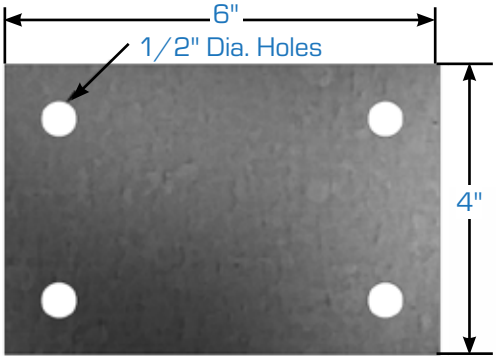
INSTANTLOCK 2 SCREW JACK

PART #	DESCRIPTION	WEIGHT (LBS.)	MAXIMUM ALLOWABLE LOAD (LBS.)
FBJ	Fixed Base Screw Jack	11.6	7,500
FBJ2	Fixed Base Caster Screw Jack	12.2	7,500

Third-party manufactured components. Data may vary.



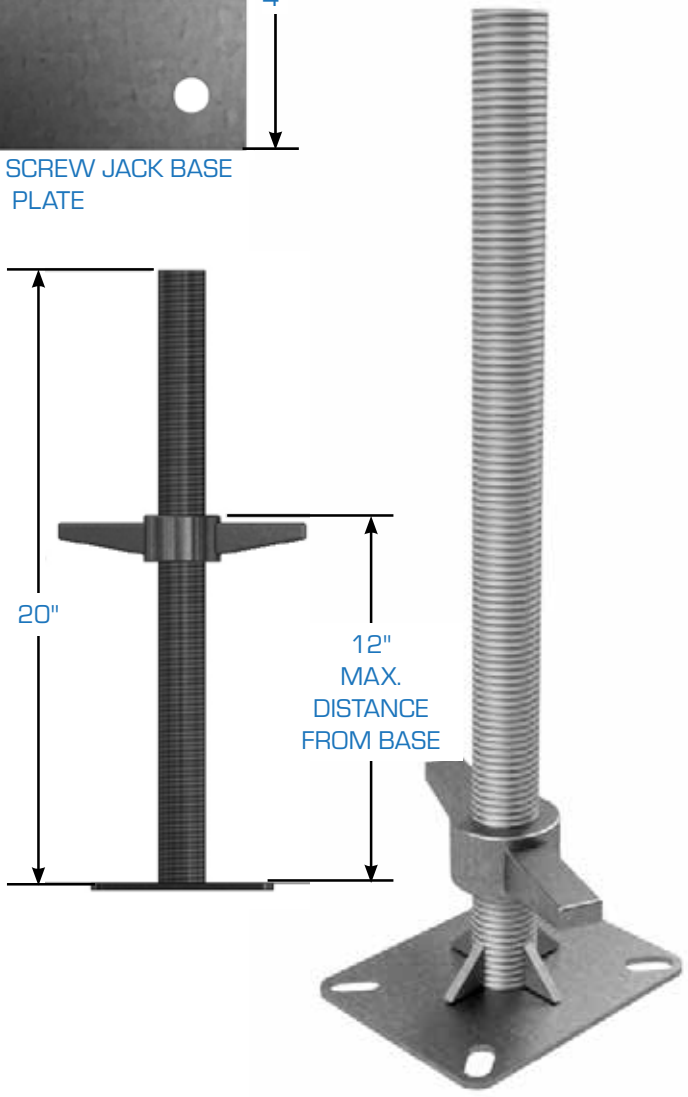
FIXED BASE CASTER SCREW JACK BASE PLATE



FIXED BASE SCREW JACK BASE PLATE

The fixed base caster screw jack has a larger base plate that is designed to allow the jack to be bolted to a standard flat top caster.

The fixed base caster screw jack also has added bracing to make it stronger while attached to a caster.



BUILD NOTES:

1. 7/16 x 1 ½ inch, grade 5 or stronger bolts with flat washers must be used to bolt the caster to the fixed base caster screw jack.
2. Wood sills are to be used under leveling jacks in accordance with OSHA guidelines or plant safety regulations, whichever is stricter.
3. Wood sills should be properly sized to prevent overloading the substrate on which the scaffold is resting.

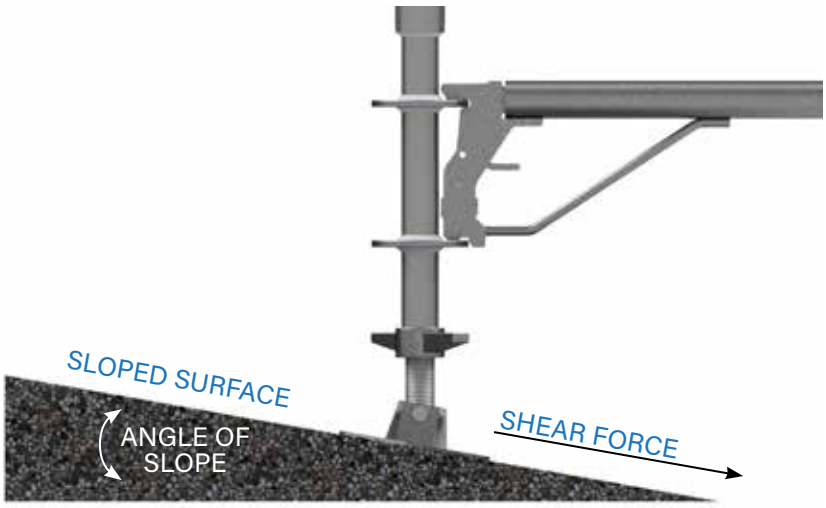
WARNING: Jack cannot be extended more than 12 inches above the base.

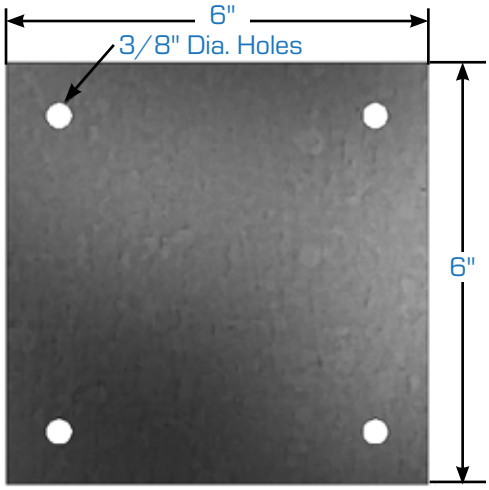
All material must be inspected prior to use! See inspection guidelines on page 87.

INSTANTLOCK 2 SWIVEL JACK

PART #	DESCRIPTION	WEIGHT (LBS.)	MAXIMUM ALLOWABLE LOAD (LBS.) LOAD (P) WHEN ANGLE OF SLOPE 0°
SBJ	Swivel Base Screw Jack	7.5	5,000

Third-party manufactured component. Data may vary.





SWIVEL BASE SCREW JACK BASE PLATE

All material must be inspected prior to use! See inspection guidelines on page 87.

WARNING: Jack cannot be extended more than 12 inches above the base.

INSTANTLOCK 2 CASTER

PART #	DESCRIPTION	WHEEL TYPE	WEIGHT (LBS.)	ALLOWABLE ROLLING LOAD (LBS.)
CR8	8" Caster with pin	Plastic	17	900
CRF8	8" Caster flat base	Plastic	17.5	900
CR12	12" Caster	Plastic	23	1,300

Third-party manufactured components. Data may vary.

BUILD NOTES:

1. Casters must be locked while working on the scaffold.
2. Check the weight of the scaffold and intended load when using casters.
3. To maintain a 4:1 safety factor, a scaffold 15 feet high with two (2) board decks is the largest scaffold that should be built with 8-inch casters. A scaffold 21 feet high with three (3) board decks is the largest scaffold that should be built with 12-inch casters. For heights greater than 21 feet, contact your engineer.

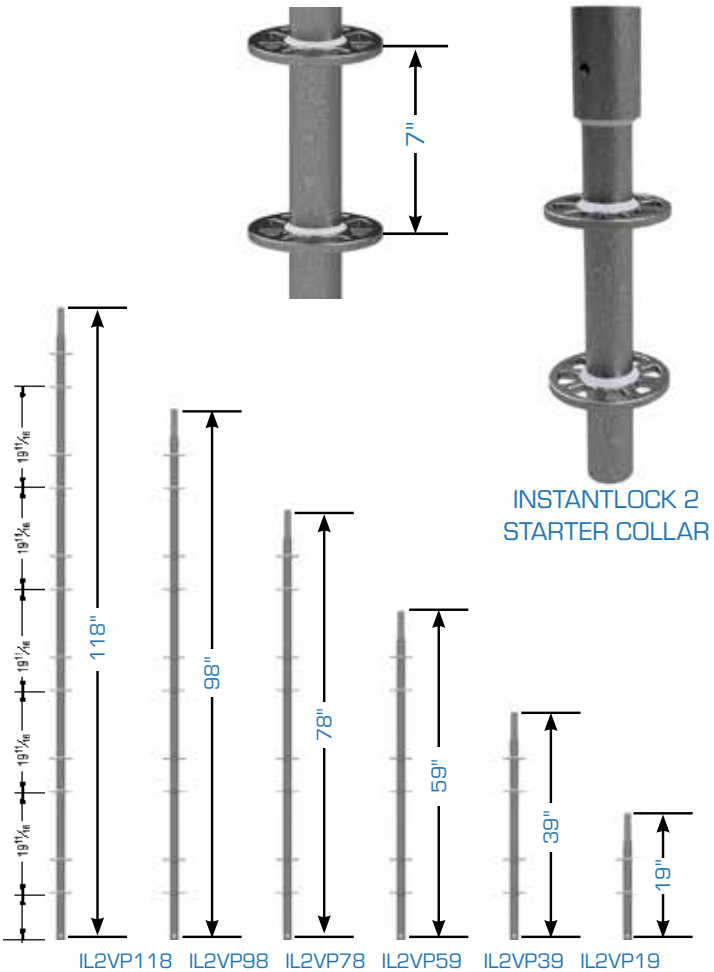
MAINTENANCE:

1. Casters should be periodically maintained. If they have grease fittings, they should be filled with a white lithium grease (ST-80 High-Performance Grease or its equivalent).
2. WD-40 can be used before application of grease or oil to loosen old grease and remove any rust buildup.
3. The caster bearings must be inspected for any wear or damage. Replace any casters that show signs of wear or damage.

All material must be inspected prior to use! See inspection guidelines on page 87.

INSTANTLOCK 2 VERTICAL POST

PART #	DESCRIPTION	EFFECTIVE LENGTH (INCHES)	OVERALL LENGTH W/ PIN (INCHES)	TUBE LENGTH (INCHES)	WEIGHT GALVANIZED (LBS.)
IL2CP	Vertical Coupling Pin	11.5	—	—	1.8
IL2SC	InstantLock 2 Starter Collar	13	18	18	6.8
IL2VP19	1'-7" InstantLock 2 Vertical	19.66	25.69	19.66	9
IL2VP39	3'-3" InstantLock 2 Vertical	39.35	41.43	39.35	15.5
IL2VP59	4'-11" InstantLock 2 Vertical	59.04	65.06	59.04	21.5
IL2VP78	6'-6" InstantLock 2 Vertical	78.73	84.74	78.73	28.5
IL2VP98	8'-2" InstantLock 2 Vertical	98.42	104.43	98.42	34
IL2VP118	9'-10" InstantLock 2 Vertical	118.11	124.11	118.11	41



INSTANTLOCK 2 STARTER COLLAR

All material must be inspected prior to use! See inspection guidelines on page 87.

MATERIAL SPECS:

1. All tubing is 1.90 diameter, 11-gauge (0.120 wall), high-strength, minimum 50,000 yield, and 75,000 tensile. Tube length is the length of tubing required to manufacture each vertical.
2. Rosette spacing is 19.685 inches center to center.
3. Verticals are compatible with standard 1.90 OD tube and clamp, and pin and ring material.
4. When connecting verticals, a vertical pin with snap buttons must be used to align the verticals.

Clamp bolts should have between 40 and 65 lbs. tension. Overtightening could damage the threads, bolt or item the clamp is attached to.

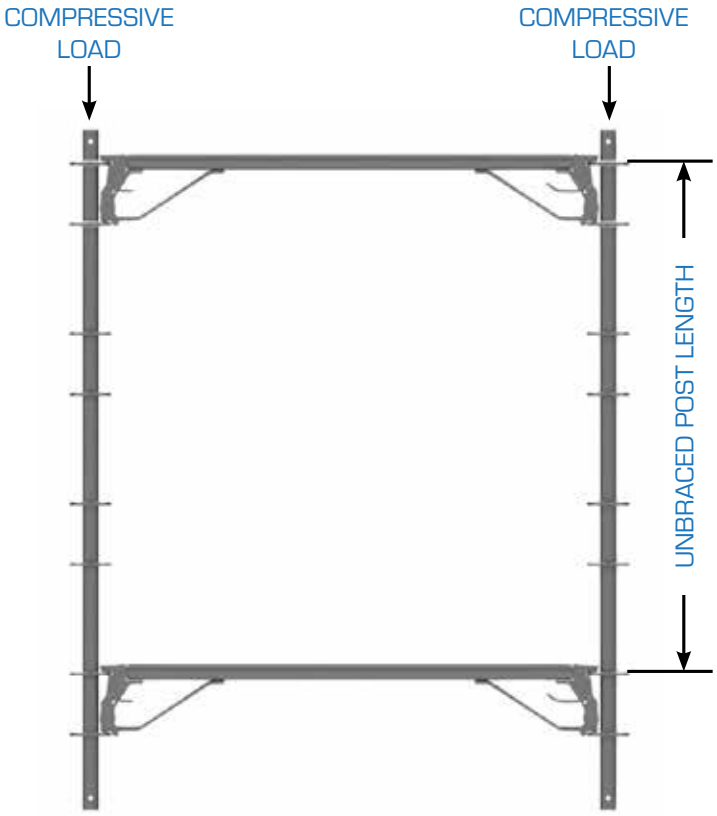
CAUTION: There is a pinch point located where two verticals are pinned together.

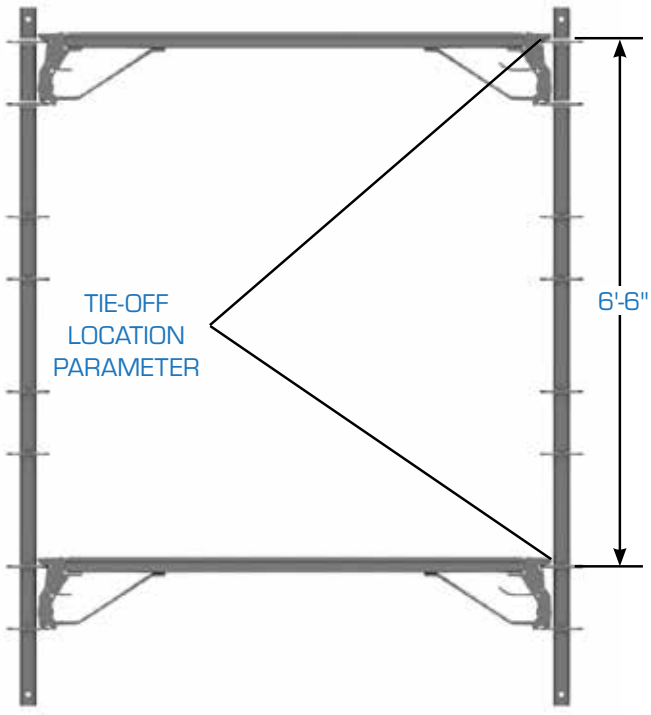
Use caution when passing verticals. Ensure the vertical pin is correctly fastened.

WARNING: Two- (2) rosette verticals should only be used as the top of a vertical column. Two- (2) rosette verticals cannot have a vertical pin inserted in the top and bottom. The snap buttons will not lock on both pins and may create a drop hazard.

INSTANTLOCK 2 VERTICAL POST LOADING

UNBRACED POST LENGTH (INCHES)	MAXIMUM ALLOWABLE COMPRESSIVE LOAD WHEN RATED FOR SCAFFOLD USE (LBS.)
78	4,700
59	5,500
39	6,800





Allowable loads include OSHA 4:1 safety factor.

When designing scaffolds with unique configurations or special loading conditions, consult with a professional engineer (P.E.).

All material must be inspected prior to use! See inspection guidelines on page 87.

INSTANTLOCK 2 HORIZONTAL BAR

PART #	DESCRIPTION	VERTICAL POST SPACING (INCHES)	OVERALL WIDTH (INCHES)	TUBE LENGTH (INCHES)	WEIGHT GALVANIZED (LBS.)
IL2PB24	2' Bearer	24	22	17.38	10.5
IL2PB36	36" Bearer	36	34	29.38	11.5
IL2PB42	3'-6" Bearer	42	40	35.38	12.5
IL2PB48	4' Bearer	48	46	41.38	13
IL2PB60	5' Bearer	60	58	53.38	15.5
IL2PB72	6' Bearer	72	70	65.38	18
IL2PB84	7' Bearer	84	82	77.38	20
	HORIZONTAL LEDGER				
IL2HL96	8' Ledger	96	94	89.38	21
IL2HL108	9' Ledger	108	106	101.38	22
IL2HL120	10' Ledger	120	118	113.38	25.5

InstantLock 2 horizontals are equipped with one cable assist lever (shown in red), which releases both ends of the horizontal, and two triggers which control only that end of the horizontal.

The InstantLock 2 end connector design allows metal scaffold boards to be placed the full length of the horizontal. The horizontal is capped on the top to prevent debris from entering into the trigger locking mechanism.

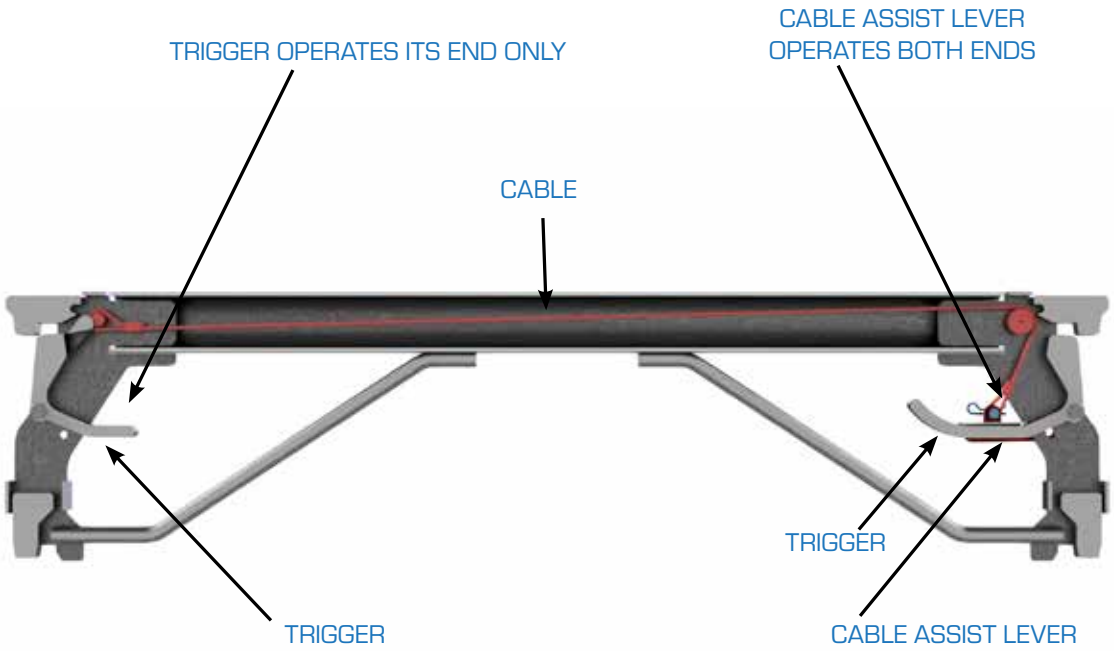
MATERIAL SPECS:

1. Tube length is the length of tubing required to manufacture each horizontal.
2. Tubing for the 7-foot bearer through the 10-foot ledger are 1.90 diameter, 12-gauge (0.108 wall), high-strength tubing minimum 65,000 yield, 75,000 tensile.
3. Horizontals are compatible with standard 1.90 OD tube and clamp material.

All material must be inspected prior to use! See inspection guidelines on page 87.

CAUTION: There is a pinch point when closing the trigger.

INSTANTLOCK 2 HORIZONTAL BAR



HORIZONTAL SCAFFOLD BAR DESIGNED WITH CABLE AND SPRING-LOADED TRIGGER ASSEMBLY

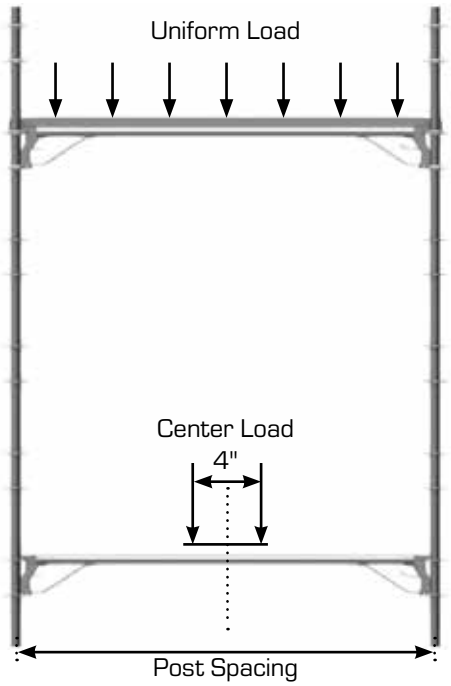
BUILD NOTES:

1. In order to gain full effectiveness of the cable assist feature, all triggers should be placed together at vertical joints.
2. The following methods will assist with builder training:
   - Builders must be trained on the function differences between the cable assist lever, and trigger assemblies.
     a.) Cable assist lever opens both end connectors.
     b.) Triggers function independently of the cable assist lever.
   - When installing the horizontal, hold the cable assist lever end toward yourself and squeeze the lever. This will open both trigger gates.
   - Connect the horizontal to both verticals releasing the cable assist lever.
   - Tug/twist and visually inspect the horizontal to make sure both triggers have proper seating within the vertical rosettes.
   - When inspecting a completed scaffold, ensure all triggers align vertically where a horizontal is connected at each joint.
3. InstantLock 2 horizontals are not approved for use when hanging scaffolds.

All material must be inspected prior to use! See inspection guidelines on page 87.

INSTANTLOCK 2 HORIZONTAL
BAR LOADING

PART #	DESCRIPTION	VERTICAL POST SPACING (INCHES)	ALLOWABLE CENTER LOAD (LBS.)	ALLOWABLE UNIFORM LOAD (LBS./FT.)
IL2PB24	24" Bearer	24	2,250	2,250
IL2PB36	36" Bearer	36	1,100	680
IL2PB42	3'-6" Bearer	42	1,000	571
IL2PB48	4' Bearer	48	900	450
IL2PB60	5' Bearer	60	625	250
IL2PB72	6' Bearer	72	530	177
IL2PB84	7' Bearer	84	410	117
	Horizontal Ledger			
IL2HL96	8' Ledger	96	320	80
IL2HL108	9' Ledger	108	275	61
IL2HL120	10' Ledger	120	250	50



BUILD NOTES:

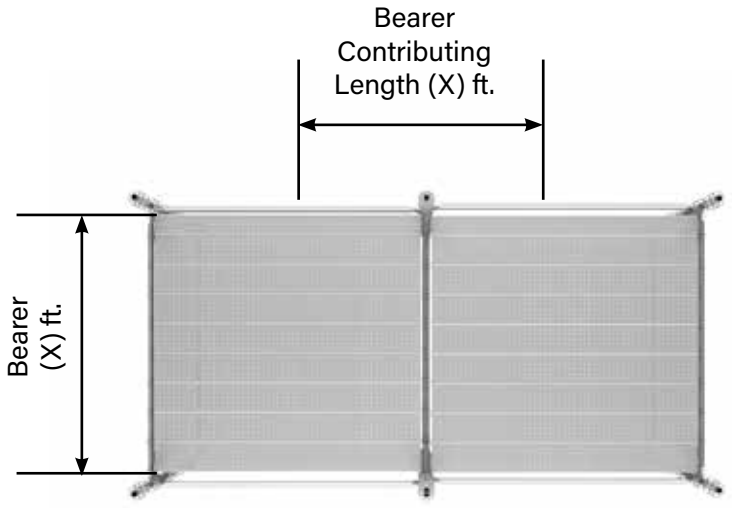
1. Vertical leg may be the limiting load carrying member.
2. Center load is applied to the center four (4) inches of the bearer or ledger.

All material must be inspected prior to use! See inspection guidelines on page 87.

INSTANTLOCK 2 HORIZONTAL BAR
MULTIPLE-BAY LOADING

		LEDGER LENGTH									
		IL2PB24	IL2PB36	IL2PB42	IL2PB48	IL2PB60	IL2PB72	IL2PB84	IL2HL96	IL2HL108	IL2HL120
BEARER	LENGTH (INCHES)	24	36	42	48	60	72	84	96	108	120
IL2PB24	24	1125	750	643	563	450	375	321	281	250	225
IL2PB36	36	340	227	194	170	136	113	97	85	76	68
IL2PB42	42	286	190	163	143	114	95	82	71	63	57
IL2PB48	48	225	150	129	113	90	75	64	56	50	45
IL2PB60	60	125	83	71	63	50	42	36	31	28	25
IL2PB72	72	88	59	50	44	35	29	25	22	20	18
IL2PB84	84	59	39	33	29	23	20	17	15	13	12
IL2HL96	96	40	27	23	20	16	13	11	10	9	8
IL2HL108	108	31	20	17	15	12	10	9	8	7	6
IL2HL120	120	25	17	14	13	10	8	7	6	6	5

Chart shows the total allowable load per square foot (live load + dead).



Continuous-Run Scaffold

All areas below 25 lbs./sq. ft. (in green) do not meet OSHA requirements for a light-duty scaffold. OSHA 1926.451 (a) 6 in conjunction with non-mandatory Appendix A, define uniform loads for scaffold types.

BUILD NOTE:

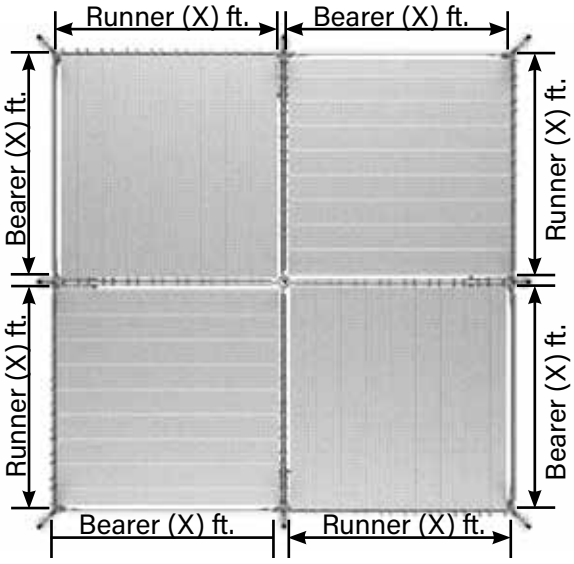
Deck planking or verticals may be the limiting load carrying member.

All material must be inspected prior to use! See inspection guidelines on page 87.

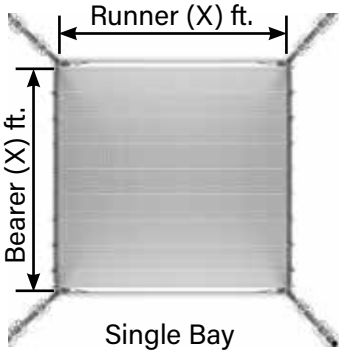
INSTANTLOCK 2 HORIZONTAL BAR
SINGLE-BAY LOADING

		LEDGER LENGTH									
		IL2PB24	IL2PB36	IL2PB42	IL2PB48	IL2PB60	IL2PB72	IL2PB84	IL2HL96	IL2HL108	IL2HL120
BEARER	LENGTH (INCHES)	24	36	42	48	60	72	84	96	108	120
IL2PB24	24	2250	1500	1286	1125	900	750	643	563	500	450
IL2PB36	36	680	453	388	340	272	227	194	170	151	136
IL2PB42	42	571	381	327	286	229	190	163	143	127	114
IL2PB48	48	450	300	257	225	180	150	129	113	100	90
IL2PB60	60	250	167	143	125	100	83	71	63	56	50
IL2PB72	72	177	118	101	88	71	59	50	44	39	35
IL2PB84	84	117	78	67	59	47	39	33	29	26	23
IL2HL96	96	80	53	46	40	32	27	23	20	18	16
IL2HL108	108	61	41	35	31	24	20	17	15	14	12
IL2HL120	120	50	33	29	25	20	17	14	13	11	10

Chart shows the total allowable load per square foot (live load + dead load).



Alternating Bays



Single Bay

BUILD NOTES:

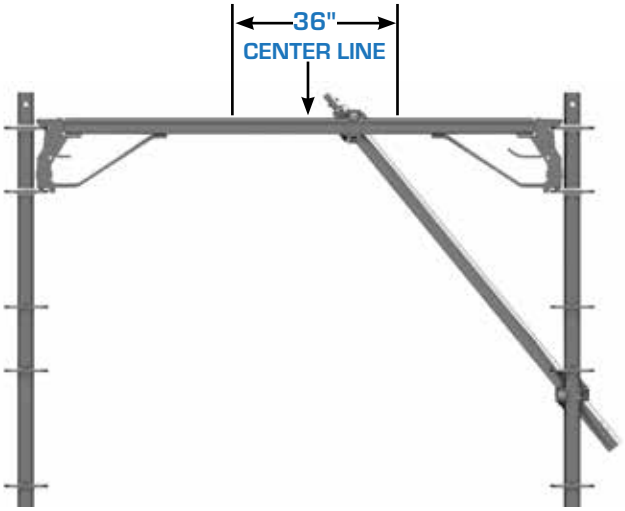
1. Bearer supports the boards.
2. Deck planking or verticals may be the limiting load carrying member.

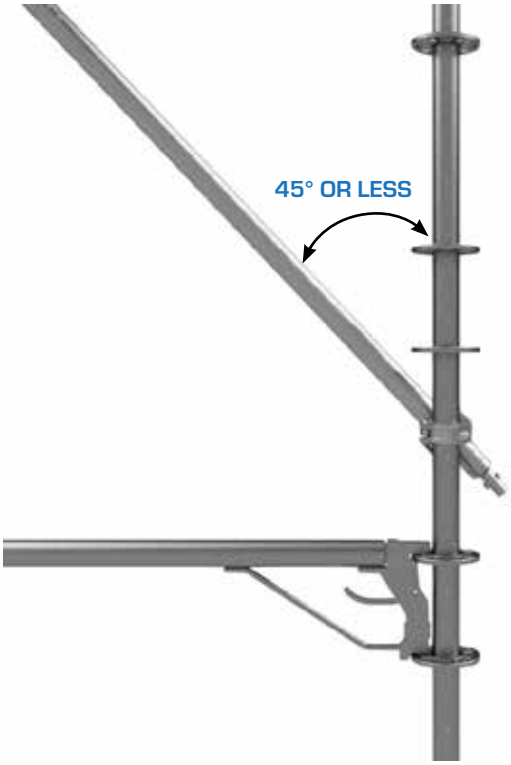
All material must be inspected prior to use! See inspection guidelines on page 87.

All areas below 25 lbs./sq. ft. (in green) do not meet OSHA requirements for a light-duty scaffold. OSHA 1926.451 (a) 6 in conjunction with non-mandatory Appendix A, define uniform loads for scaffold types.

BRACING INSTANTLOCK 2 HORIZONTAL BARS

PART #	DESCRIPTION	VERTICAL POST SPACING (INCHES)	ALLOWABLE CENTER LOAD (LBS.)	ALLOWABLE UNIFORM LOAD (LBS./FT.)
IL2PB60	5' Bearer	60	1,200	480
IL2PB72	6' Bearer	72	975	325
IL2PB84	7' Bearer	84	975	250
	HORIZONTAL LEDGER			
IL2HL96	8' Ledger	96	750	188
IL2HL108	9' Ledger	108	675	150
IL2HL120	10' Ledger	120	625	125





Bracing can be added to InstantLock 2 horizontal bars when greater strength is required.

Diagonal pin braces, short diagonal braces, or tube and clamp may be used to provide additional strength to the InstantLock 2 horizontal bar.

BUILD NOTES:

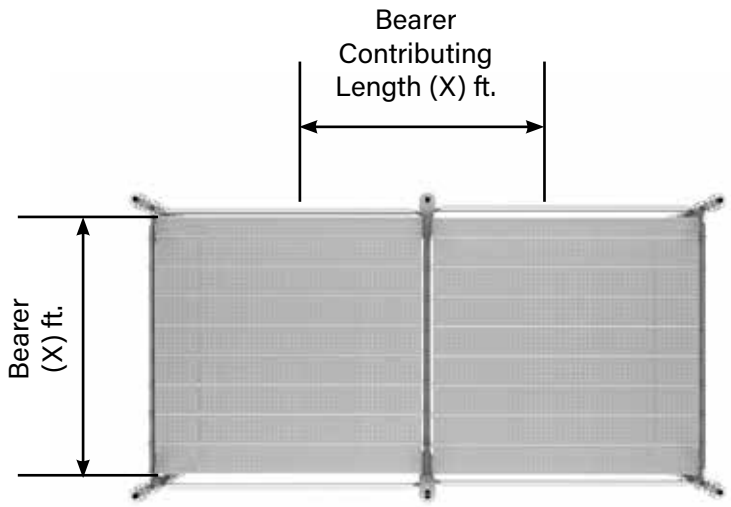
1. The angle of the bottom connection of the brace to the vertical must be 45 degrees or less.
2. The brace must be placed within 18 inches of either side of the center of the horizontal. Vertical leg may be the limiting load carrying member.
3. Horizontal bracing adds additional torque to the verticals, which must be considered when building heavy-duty or tall scaffolds.
4. Center load is applied to the center four (4) inches of the bearer or ledger.

All material must be inspected prior to use! See inspection guidelines on page 87.

INSTANTLOCK 2 HORIZONTAL BAR
WITH ONE (1) BRACE

		LEDGER LENGTH									
		IL2PB24	IL2PB36	IL2PB42	IL2PB48	IL2PB60	IL2PB72	IL2PB84	IL2HL96	IL2HL108	IL2HL120
BEARER	LENGTH (INCHES)	24	36	42	48	60	72	84	96	108	120
IL2PB60	60	240	160	137	120	96	80	69	60	53	48
IL2PB72	72	163	108	93	81	65	54	46	41	36	33
IL2PB84	84	125	83	71	63	50	42	36	31	28	25
IL2HL96	96	94	63	54	47	38	31	45	23	21	19
IL2HL108	108	75	50	43	38	30	25	21	19	17	15
IL2HL120	120	63	42	36	31	25	21	18	16	14	13

Chart shows the allowable load per square foot when horizontal is braced as defined on page 11—horizontal bracing.
Chart shows the total allowable load per square foot (live load + dead load).



Continuous-Run Scaffold

Standard board layout.

All areas below 25 lbs./sq. ft. (in green) do not meet OSHA requirements for a light-duty scaffold. OSHA 1926.451 (a) 6 in conjunction with non-mandatory Appendix A, define uniform loads for scaffold types.

All material must be inspected prior to use! See inspection guidelines on page 87.

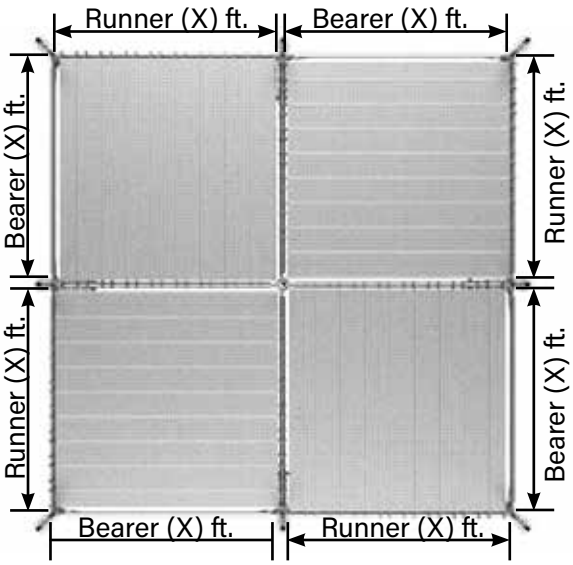
BUILD NOTES:

1. Bearer supports the boards and has one (1) diagonal brace.
2. Deck planking or verticals may be the limiting load carrying member.

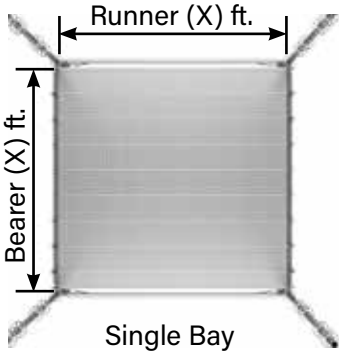
INSTANTLOCK 2 HORIZONTAL BAR
WITH ONE (1) BRACE

		LEDGER LENGTH									
		IL2PB24	IL2PB36	IL2PB42	IL2PB48	IL2PB60	IL2PB72	IL2PB84	IL2HL96	IL2HL108	IL2HL120
BEARER	LENGTH (INCHES)	24	36	42	48	60	72	84	96	108	120
IL2PB60	60	480	320	274	240	192	160	137	120	107	96
IL2PB72	72	325	217	186	163	130	108	93	81	72	65
IL2PB84	84	250	167	143	125	100	83	71	63	56	50
IL2HL96	96	188	125	107	107	94	63	54	47	42	38
IL2HL108	108	150	100	86	75	60	50	43	38	33	30
IL2HL120	120	125	83	71	63	50	42	36	31	28	25

Chart shows the allowable load per square foot when horizontal is braced as defined on page 11—horizontal bracing.
Chart shows the total allowable load per square foot (live load + dead load).



Alternating Bays



Single Bay

Single-bay scaffold or staggered board deck layout.

BUILD NOTES:

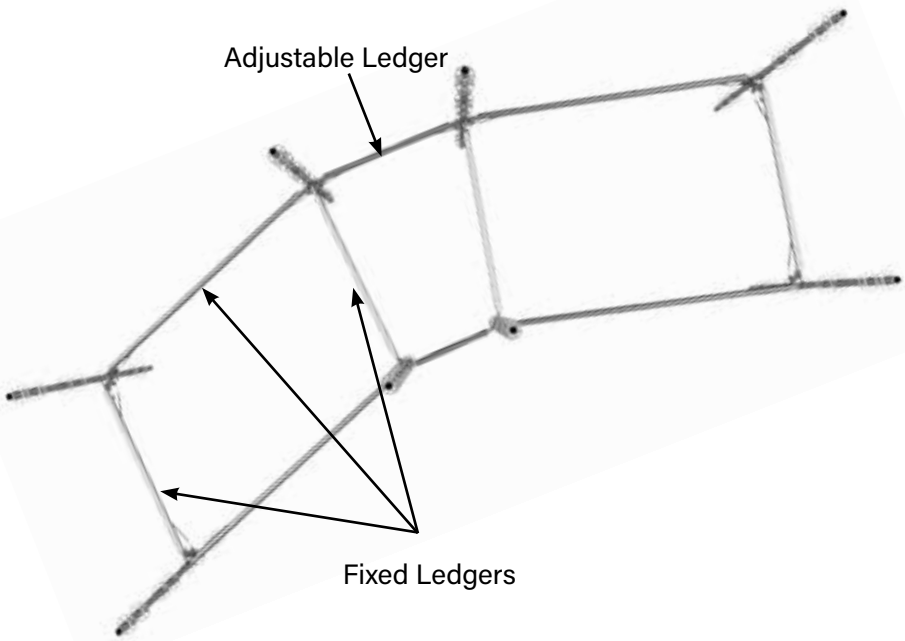
1. Bearer supports the boards and has one (1) diagonal brace.
2. Deck planking or verticals may be the limiting load carrying member.

All areas below 25 lbs./sq. ft. do not meet OSHA requirements for a light-duty scaffold. OSHA 1926.451 (a) 6 in conjunction with non-mandatory Appendix A, define uniform loads for scaffold types.

All material must be inspected prior to use! See inspection guidelines on page 87.

INSTANTLOCK 2 ADJUSTABLE BEARER

PART #	DESCRIPTION	MINIMUM POST SPACING (INCHES)	MAXIMUM POST SPACING (INCHES)	WEIGHT GALVANIZED (LBS.)
IL2TPB36	36" to 48" Adjustable Bearer	36	47	12
IL2TPB48	48" to 60" Adjustable Bearer	48	59	17
IL2TPB60	60" to 72" Adjustable Bearer	60	71	20
IL2TPB72	72" to 84" Adjustable Bearer	72	83	23
IL2TPB84	84" to 96" Adjustable Bearer	84	95	26
IL2THL96	96" to 108" Adjustable Ledger	96	107	32



Adjustable bearers are designed to provide deck support between two (2) self-supporting scaffold structures where traditionally only tube and clamp could be used.

Adjustable bearers may also be used to create odd-sized scaffolds (ex: 5 feet x 6 ½ feet).

MATERIAL SPECS:

1. Outer tubing is 1.90 diameter, 11-gauge (0.120 wall), high-strength, minimum 65,000 yield, and 75,000 tensile.
2. Inner tubing is 1.625 diameter, 11-gauge (0.120 wall), high-strength, minimum 65,000 yield, and 75,000 tensile.

CAUTION: There is a pinch point when closing the trigger and where the parts telescope.

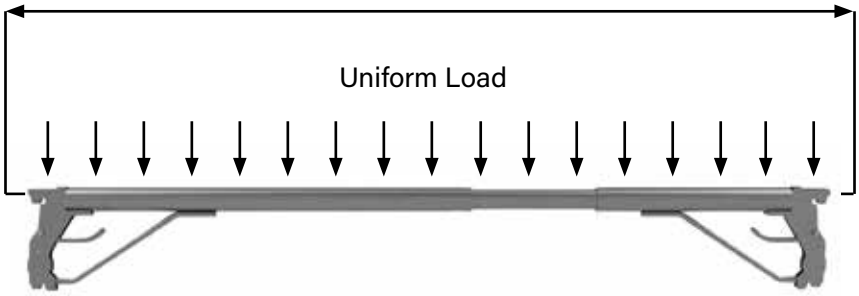
WARNING: Adjustable bearers provide limited longitudinal support.

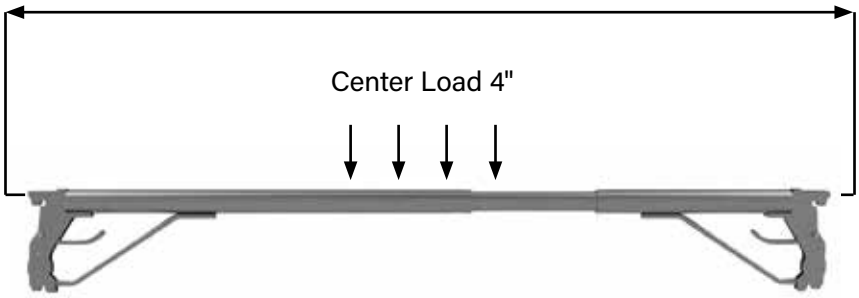
Intermediate horizontal adapters may only be placed on adjustable bearers if designed by an engineer.

All material must be inspected prior to use! See inspection guidelines on page 87.

INSTANTLOCK 2
ADJUSTABLE BEARER (CONT'D)

PART #	DESCRIPTION	ALLOWABLE CENTER LOAD (LBS.)	ALLOWABLE UNIFORM LOAD WHEN FULLY EXTENDED (LBS./FT.)
IL2TPB36	36" to 48" Adjustable Bearer	812	406
IL2TPB48	48" to 60" Adjustable Bearer	625	250
IL2TPB60	60" to 72" Adjustable Bearer	750	250
IL2TPB72	72" to 84" Adjustable Bearer	687	196
IL2TPB84	84" to 96" Adjustable Bearer	618	155
IL2THL96	96" to 108" Adjustable Ledger	562	125





BUILD NOTES:

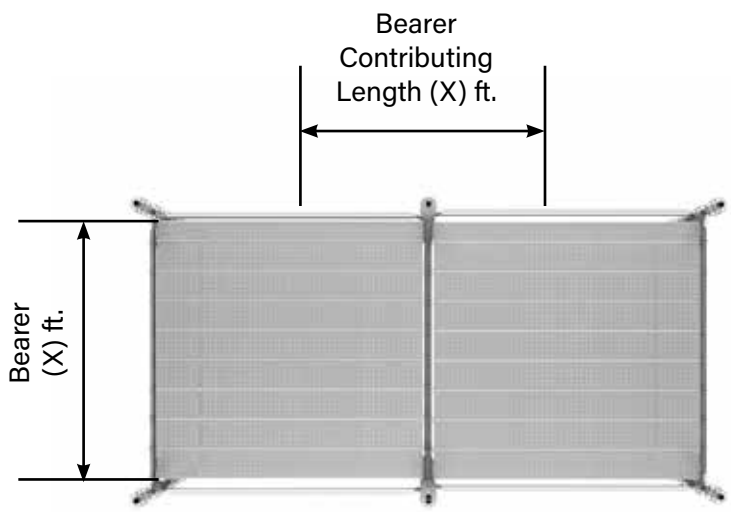
1. Vertical leg may be the limiting load carrying member.
2. Center load is applied to the center four (4) inches of the bearer or ledger.

All material must be inspected prior to use! See inspection guidelines on page 87.

INSTANTLOCK 2
ADJUSTABLE BEARER (CONT'D)
MULTIPLE-BAY LOADING

		LEDGER LENGTH								
		IL2PB24	IL2PB42	IL2PB48	IL2PB60	IL2PB72	IL2PB84	IL2HL96	IL2HL108	IL2HL120
BEARER	Length (inches)	24	42	48	60	72	84	96	108	120
IL2TPB36	47	203	116	102	81	68	58	51	45	41
IL2TPB48	59	125	71	63	50	42	36	31	28	25
IL2TPB60	71	125	71	63	50	42	36	31	28	25
IL2TPB72	83	98	56	49	39	33	28	25	22	20
IL2TPB84	95	77	44	39	31	26	22	19	17	15
IL2THL96	107	62	36	31	25	21	18	16	14	12

Chart shows the total allowable load per square foot (live load + dead load).
Chart shows worst case scenario— adjustable bearer fully extended.



Continuous-Run Scaffold

All areas below 25 lbs./sq. ft. (in green) do not meet OSHA requirements for a light-duty scaffold. OSHA 1926.451 (a) 6 in conjunction with non-mandatory Appendix A, define uniform loads for scaffold types.

BUILD NOTES:

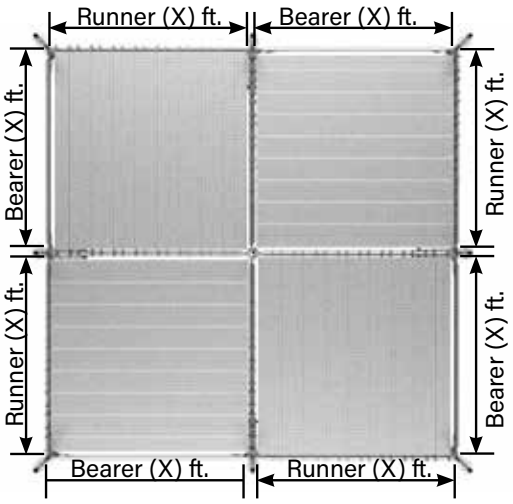
1. Bearer supports the boards and has one (1) diagonal brace.
2. Deck planking or verticals may be the limiting load carrying member.

All material must be inspected prior to use! See inspection guidelines on page 87.

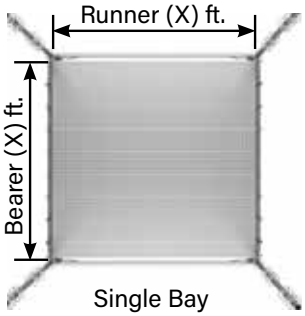
INSTANTLOCK 2
ADJUSTABLE BEARER (CONT'D)
SINGLE-BAY LOADING

BEARER	LEDGER LENGTH									
		IL2PB24	IL2PB42	IL2PB48	IL2PB60	IL2PB72	IL2PB84	IL2HL96	IL2HL108	IL2HL120
	Length (inches)	24	42	48	60	72	84	96	108	120
IL2TPB36	47	271	232	203	162	135	116	102	90	81
IL2TPB48	59	167	143	125	100	83	71	63	56	50
IL2TPB60	71	167	143	125	100	83	71	63	56	50
IL2TPB72	83	131	112	98	79	65	56	49	44	39
IL2TPB84	95	103	88	77	62	52	44	39	34	31
IL2THL96	107	83	71	62	50	42	36	31	28	25

Chart shows the total allowable load per square foot (live load + dead load).
Chart shows worst case scenario—adjustable bearer fully extended.



Alternating Bays



Single Bay

All areas below 25 lbs./sq. ft. do not meet OSHA requirements for a light-duty scaffold. OSHA 1926.451 (a) 6 in conjunction with non-mandatory Appendix A, define uniform loads for scaffold types.

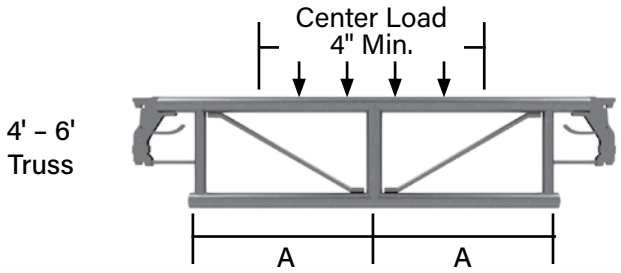
BUILD NOTES:

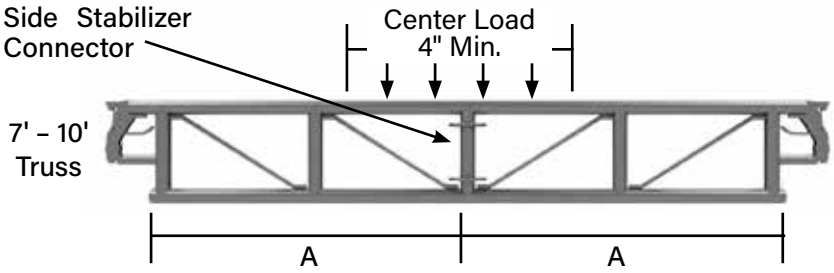
1. Bearer supports the boards and has one (1) diagonal brace.
2. Deck planking or verticals may be the limiting load carrying member.

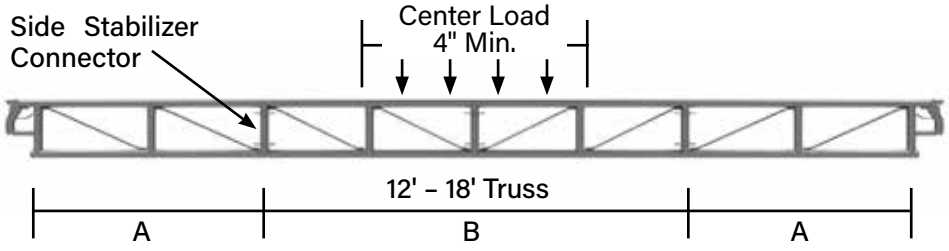
All material must be inspected prior to use! See inspection guidelines on page 87.

INSTANTLOCK 2 TRUSSES

PART #	DESCRIPTION	LENGTH (INCHES)	DEPTH (INCHES)	DISTANCE A/B (FT.) A (FT.)	DISTANCE A/B (FT.) B (FT.)	NUMBER OF STABILIZERS	WEIGHT GALVANIZED (LBS.)
IL2TR4	4' Truss	46	9.5	—	—	—	27
IL2TR5	5' Truss	58	9.5	—	—	—	29
IL2TR6	6' Truss	70	9.5	3	—	1	31
IL2TR7	7' Truss	82	10.75	3.5	—	1	33
IL2TR8	8' Truss	96	13.375	4	—	1	45.5
IL2TR9	9' Truss	106	13.375	4.5	—	1	53
IL2TR10	10' Truss	118	13.375	5	—	1	54.5
IL2TR12	12' Truss	142	15	3	6	2	63.5
IL2TR14	14' Truss	166	15	3.5	7	2	82
IL2TR16	16' Truss	190	15	4	8	2	92
IL2TR18	18' Truss	214	15	5	8	2	110







All material must be inspected prior to use! See inspection guidelines on page 87.

MATERIAL SPECS:

All load-bearing tubes are 1.90 diameter, 11-gauge (0.120 wall), high-strength min. 65,000 yield, 75,000 tensile.

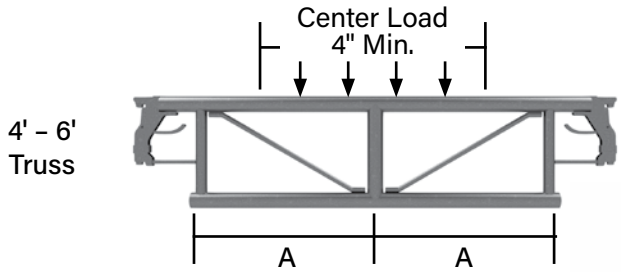
BUILD NOTES:

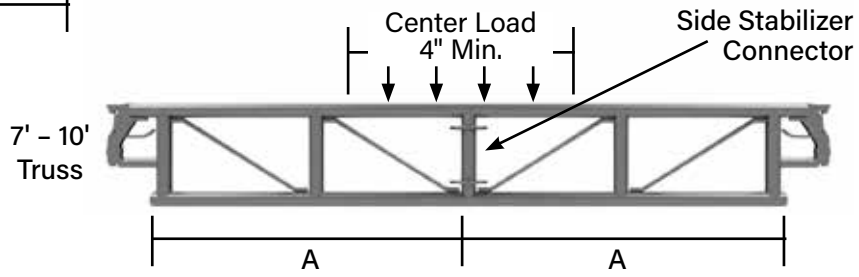
1. Trusses should be installed in pairs and have side stabilizers installed if side stabilizer connector is present. When the stabilizers cannot be installed, tube and clamp should be installed directly next to the stabilizer connector near the top chord.
2. A single truss can be installed if properly braced or tied back to an adjacent leg or structure.

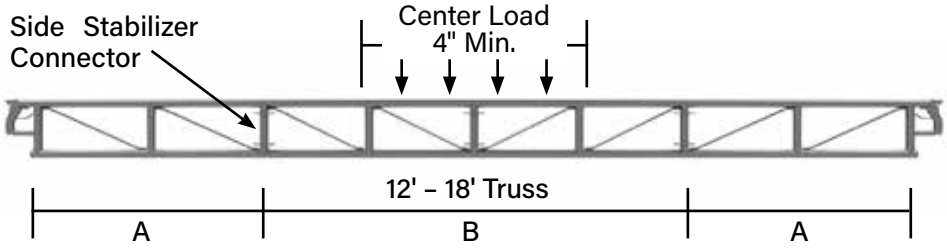
CAUTION: There is a pinch point when operating the trigger.

INSTANTLOCK 2 TRUSSES (CONT'D)

PART #	DESCRIPTION	ALLOWABLE CENTER LOAD (LBS.)	ALLOWABLE UNIFORM LOAD (LBS./FT.)
IL2TR4	4' Truss	3,000	1,500
IL2TR5	5' Truss	3,000	1,200
IL2TR6	6' Truss	2,750	910
			ALLOWABLE UNIFORM LOAD WITH SIDE STABILIZERS (LBS./FT.)
IL2TR7	7' Truss	3,000	857
IL2TR8	8' Truss	3,500	875
IL2TR9	9' Truss	3,500	775
IL2TR10	10' Truss	3,500	700
IL2TR12	12' Truss	3,500	575
IL2TR14	14' Truss	3,000	428
IL2TR16	16' Truss	2,000	250
IL2TR18	18' Truss	2,000	220







BUILD NOTES:

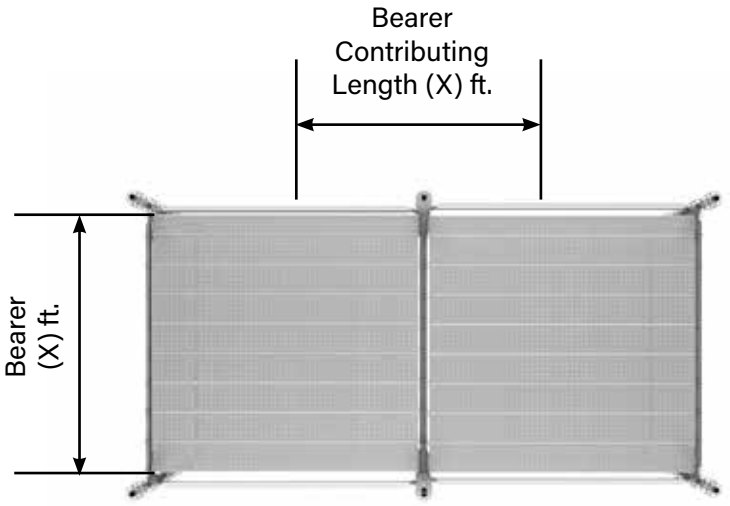
1. Vertical leg may be the limiting load carrying member.
2. Center load is applied to the center four (4) inches of the truss.

All material must be inspected prior to use! See inspection guidelines on page 87.

INSTANTLOCK 2 TRUSSES (CONT'D)
MULTIPLE-BAY LOADING

		LEDGER LENGTH									
		IL2PB24	IL2PB36	IL2PB42	IL2PB48	IL2PB60	IL2PB72	IL2PB84	IL2HL96	IL2HL108	IL2HL120
BEARER	LENGTH (INCHES)	24	36	42	48	60	72	84	96	108	120
IL2TR4	48	600	400	343	300	240	200	171	150	133	120
IL2TR5	60	600	400	343	300	240	200	171	150	133	120
IL2TR6	72	455	303	260	228	182	152	130	114	101	91
IL2TR7	84	429	286	245	214	171	143	122	107	95	86
IL2TR8	96	438	292	250	219	175	146	125	109	97	88
IL2TR9	108	388	258	221	194	155	129	111	97	86	78
IL2TR10	120	350	233	200	175	140	117	100	88	78	70
IL2TR12	144	288	192	164	144	115	96	82	72	64	58
IL2TR14	168	214	143	122	107	86	71	61	54	48	43
IL2TR16	192	125	83	71	63	50	42	36	31	28	25
IL2TR18	216	110	73	63	55	44	37	31	28	24	22

Chart shows the total allowable load per square foot (live load + dead load).



Continuous-Run Scaffold

All areas below 25 lbs./sq. ft. (in green) do not meet OSHA requirements for a light-duty scaffold. OSHA 1926.451 (a) 6 in conjunction with non-mandatory Appendix A, define uniform loads for scaffold types.

BUILD NOTE:

Deck planking or verticals may be the limiting load carrying member.

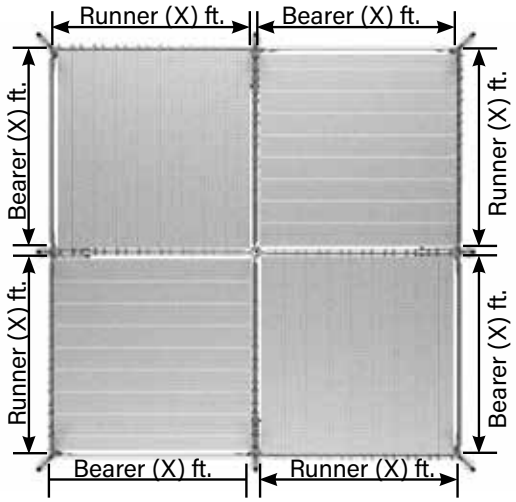
All material must be inspected prior to use! See inspection guidelines on page 87.

WARNING: Additional bracing is required for areas in green. Please consult with your qualified person and/or engineer.

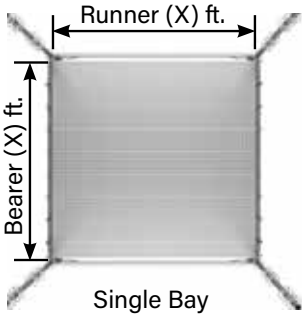
INSTANTLOCK 2 TRUSSES (CONT'D)
SINGLE-BAY LOADING

BEARER	LENGTH (INCHES)	LEDGER LENGTH									
		IL2PB24	IL2PB36	IL2PB42	IL2PB48	IL2PB60	IL2PB72	IL2PB84	IL2HL96	IL2HL108	IL2HL120
		24	36	42	48	60	72	84	96	108	120
IL2TR4	48	1200	800	686	600	480	400	343	300	267	240
IL2TR5	60	1200	800	686	600	480	400	343	300	267	240
IL2TR6	72	910	607	520	455	364	303	260	228	202	182
IL2TR7	84	857	571	490	429	343	286	245	214	190	171
IL2TR8	96	875	583	500	438	350	292	250	219	194	175
IL2TR9	108	775	517	443	388	310	258	221	194	172	155
IL2TR10	120	700	467	400	350	280	233	200	175	156	140
IL2TR12	144	575	383	329	288	230	192	164	144	128	115
IL2TR14	168	428	285	245	214	171	143	122	107	95	86
IL2TR16	192	250	167	143	125	100	83	71	63	56	50
IL2TR18	216	220	147	126	110	88	73	63	55	49	44

Chart shows the total allowable load per square foot (live load + dead load).



Alternating Bays



Single Bay

All areas below 25 lbs./sq. ft. do not meet OSHA requirements for a light-duty scaffold. OSHA 1926.451 (a) 6 in conjunction with non-mandatory Appendix A, define uniform loads for scaffold types.

BUILD NOTE:

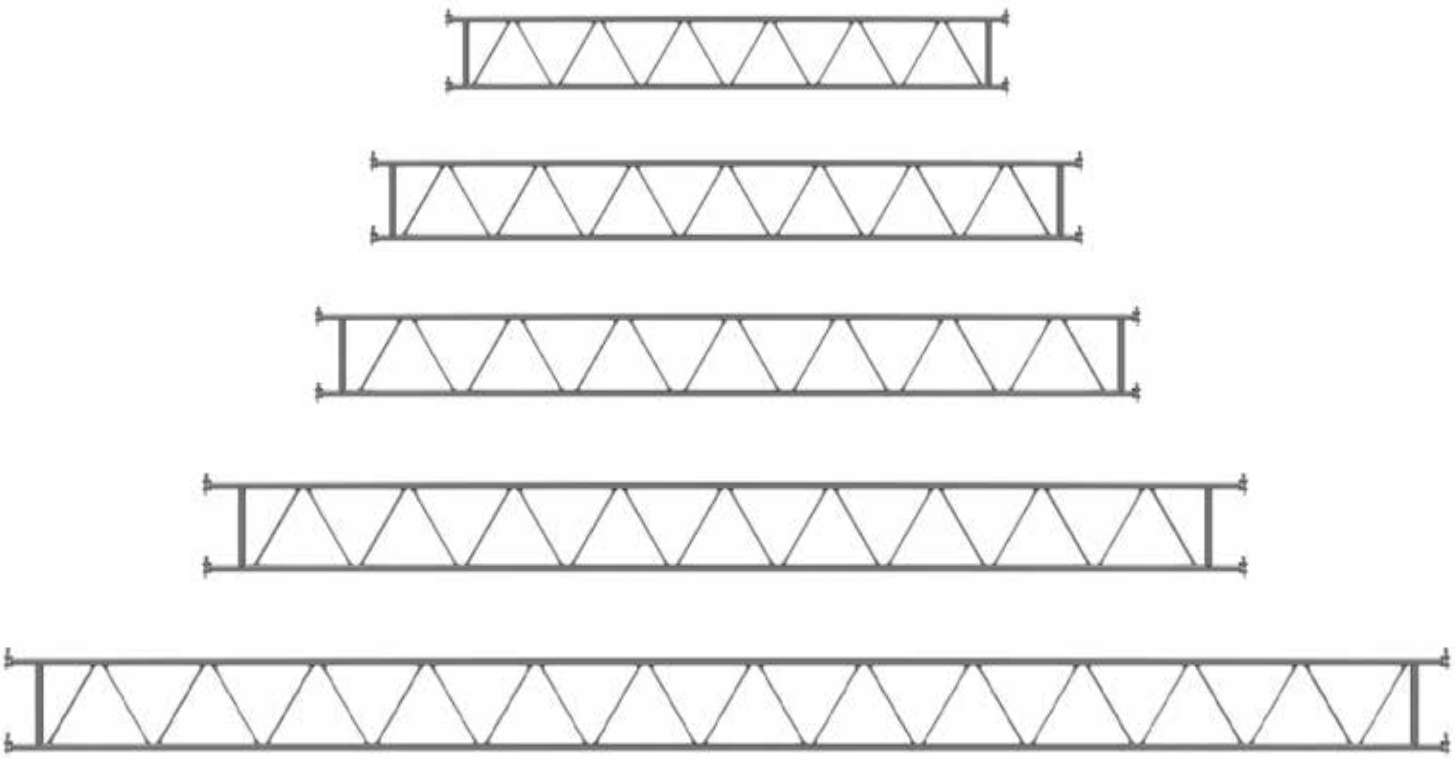
Deck planking or verticals may be the limiting load carrying member.

All material must be inspected prior to use! See inspection guidelines on page 87.

INSTANTLOCK 2 LATTICE GIRDERS

PART #	DESCRIPTION	WEIGHT GALVANIZED (LBS.)	VERTICAL POST SPACING (FT.)	ALLOWABLE CENTER LOAD (LBS.)	ALLOWABLE UNIFORM LOAD {LBS./FT.}
RLLG14	Lattice Girder 14'	98	14	3,395	474
RLLG16	Lattice Girder 16'	109	16	3,367	387
RLLG20	Lattice Girder 20'	143	20	2,225	285
RLLG21	Lattice Girder 21'	147	21	1,655	250
RLLG28	Lattice Girder 28'	200	28	1,124	152

Third-party manufactured components. Data may vary.

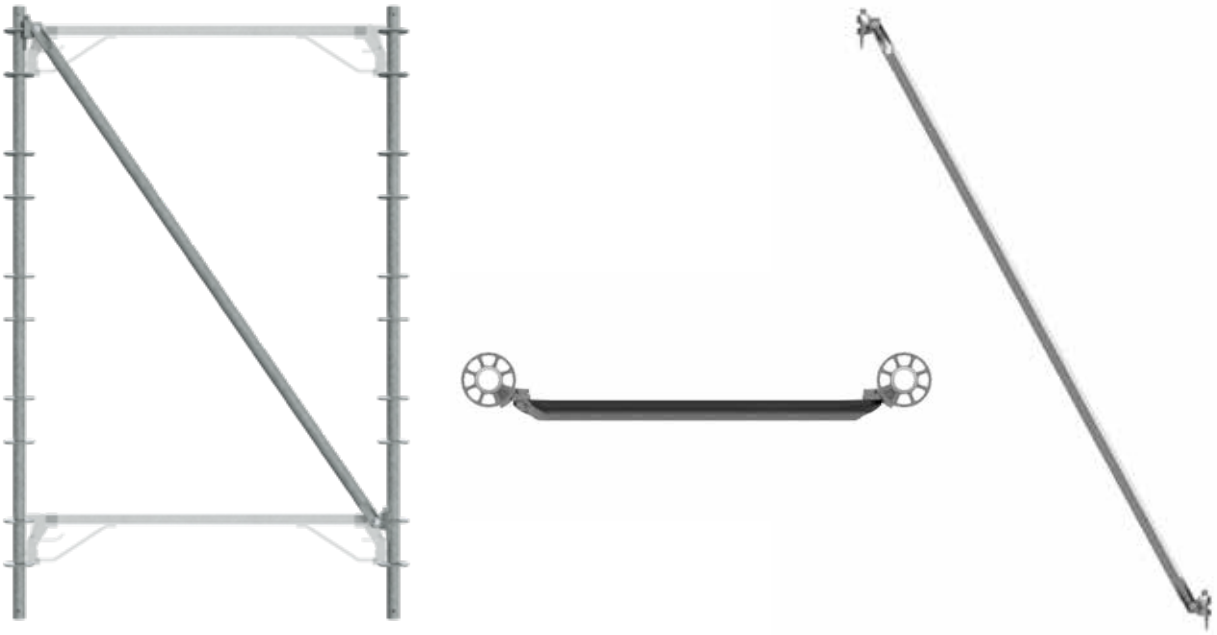


All material must be inspected prior to use! See inspection guidelines on page 87.

Lattice girders are static trusses used to span large distances, such as over roadways and other obstructions.

VERTICAL DIAGONAL BRACE
WEDGE HEAD DESIGN

PART #	DESCRIPTION	TOTAL LENGTH OF BRACE (INCHES)	BAY WIDTH SPACING (INCHES)	HEIGHT LENGTH (INCHES)	WEIGHT GALVANIZED (LBS.)
RLD36	3' Diagonal Brace	85.9	36	78	17.6
RLD42	3'-6" Bay	88.6	42	78	18
RLD48	4' Diagonal Brace	91.6	48	78	18.3
RLD60	5' Diagonal Brace	98.4	60	78	19.2
RLD72	6' Diagonal Brace	106.4	72	78	20.3
RLD84	7' Diagonal Brace	114.6	84	78	21.5
RLD96	8' Diagonal Brace	123.7	96	78	22.8
RLD108	9' Diagonal Brace	133.2	108	78	24.2
RLD120	10' Diagonal Brace	143.1	120	78	25.6



Compatible vertical diagonal bracing may be used with InstantLock 2 components.

BUILD NOTES:

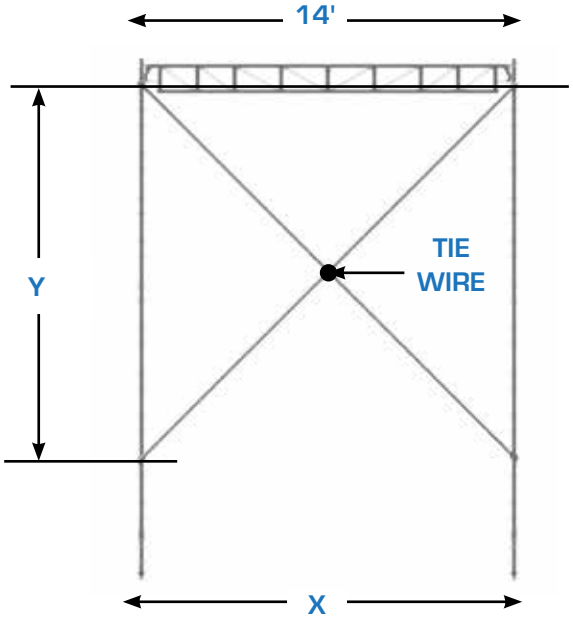
1. Load capacities may vary depending on application and bracing being used.
2. Spacing between vertical rings on the vertical must be verified to ensure proper fit of the diagonals.
3. Per OSHA, bracing should be placed as close to the nodes as possible.

All material must be inspected prior to use! See inspection guidelines on page 87.

DIAGONAL PIN BRACE

PART #	DESCRIPTION	SINGLE FITS POST SPACING (INCHES)	DOUBLE FITS POST SPACING (INCHES)	LENGTH (INCHES)	WEIGHT GALVANIZED (LBS.)
DPB	Diagonal Pin Brace	24 - 84	96 - 168	108	24
SDPB	Short Diagonal Pin Brace	Horizontal Bracing		36	8

BEARER DESCRIPTION	X COORDINATE	Y COORDINATE
24" Bearer, 2-Plank Bearer	24	105.3
36" Bearer	36	101.82
42" Bearer, 4-Plank Bearer	42	99.5
48" Bearer, 5-Plank Bearer	48	96.75
60" Bearer, 6-Plank Bearer	60	89.8
6' Bearer	72	80.5
7' Bearer	84	67.88
8' Ledger	96	193.49
9' Ledger	108	187.06
10' Ledger	120	179.6



All material must be inspected prior to use! See inspection guidelines on page 87.

The diagonal pin brace is a multipurpose brace. It has standard swivel clamps on each end, so it can be fastened to any scaffold vertical or horizontal.

These braces are also drilled and fitted, so a standard vertical pin can be used to connect two or more braces together. This may be desirable when there is a need to brace longer structures up to 14 feet.

BUILD NOTE:

When more than one (1) brace is used, the brace should be tied, when possible, in the middle with #9 wire or equivalent to a horizontal, vertical or another diagonal. When braces are connected together, the middle clamps may or may not be used.

DIAGONAL PIN BRACE (CONT'D)

UNBRACED POST LENGTH (INCHES)	MAXIMUM ALLOWABLE COMPRESSIVE LOAD WHEN RATED FOR SCAFFOLD USE (LBS.)
36	2,550
108	2,550

The short diagonal pin brace can be used to provide additional support to horizontal bearers or to extend the length of a diagonal pin brace for use on a 10-foot wide scaffold.

The diagonal pin brace can also be used as a vertical to pass through a congested area, such as a pipe rack or cable tray.

BUILD NOTE:

When used as a vertical, the diagonal pin brace must be supported by tube and clamp, braces, or tied, so there is never more than 69 inches of unsupported vertical.

MATERIAL SPECS:

1. All tubing is 1.90 diameter, 11-gauge (0.120 wall), high-strength, minimum 65,000 yield, and 75,000 tensile.
2. Diagonal pin braces are compatible with standard 1.90 OD tube and clamp material.

Clamp bolts should have between 40 and 65 lbs. tension. Overtightening could damage the threads, bolt or item the clamp is attached to.

CAUTION: There is a pinch point at the clamp and where the parts pin together

All material must be inspected prior to use! See inspection guidelines on page 87.

INSTANTLOCK 2 SYSTEM SCAFFOLD GENERAL GUIDELINES FOR BRACING

THE FOLLOWING BRACING RECOMMENDATIONS ARE FOR ALL NON-SEISMIC SCAFFOLDING BUILT USING INSTANTLOCK 2 SCAFFOLD COMPONENTS.

Bracing and/or tying should be applied to any scaffold where the top of the scaffold has movement of more than six (6) inches in any direction. The bracing should be placed to run in opposite directions on opposing sides. It may be zigzagged or run in the same direction. (See normal bracing diagram pg. 27.)

Horizontal bracing that is attached diagonally from vertical to vertical should be placed every 19.5 feet max.

Single-bay scaffolds should be braced on a minimum of two (2) sides and when feasible on all four (4) sides, starting at the bottom and continuing to a minimum of 10 feet from the top of the scaffold.

All other bay configurations require bracing placed on one (1) bay for every 30 feet of scaffold (generally every 4th bay). At a minimum, bracing should be placed on the inside and outside row of the scaffolding verticals, starting at the bottom and continuing to a minimum of 10 feet from the top of the scaffold.

Scaffolds that contain side brackets or outriggers, where there is a possibility of tipping, must also be braced or tied with tube and clamp to plant approved structural steel components (i.e., I-beams, handrails, grating, etc.)

ADDITIONAL BRACING RECOMMENDATIONS FOR LIGHT-DUTY SCAFFOLD:

Bay widths of 42 inches and less, that are less than 20 feet tall, may not require bracing. The InstantLock 2 horizontal design acts as a truss, providing necessary bracing. Scaffolds above 20 feet tall should be braced using clamp braces or tube and clamp applied to the bottom of the scaffold, leaving an unbraced height of 20 feet or less. (Bracing should always be added if there is excessive movement of the scaffold structure.)

Scaffolds with a deck height less than 10 feet do not require bracing provided they are tied off with tube and clamp to plant approved structural steel components (i.e., I-beams, handrails, grating, etc.).

ADDITIONAL BRACING RECOMMENDATIONS FOR MEDIUM- AND HEAVY-DUTY SCAFFOLD:

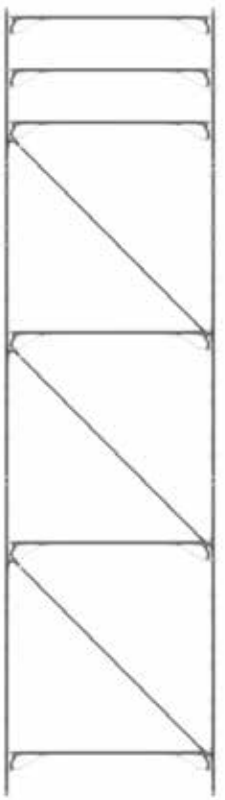
Heavy-duty scaffolds should have as much bracing as required to meet the desired loading. Bracing and/or tying should be placed on all sides of the scaffold. Multi-bay scaffolds should have bracing on every other bay, front, middle and back rows. (See heavy-duty bracing diagram pg. 27.)

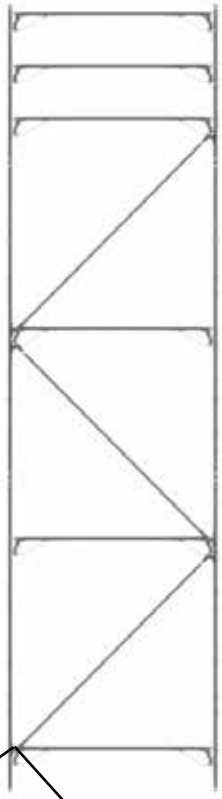
All material must be inspected prior to use! See inspection guidelines on page 87.

WARNING: Heavy-duty scaffolds require additional bracing. Please consult with your qualified person and/or engineer.

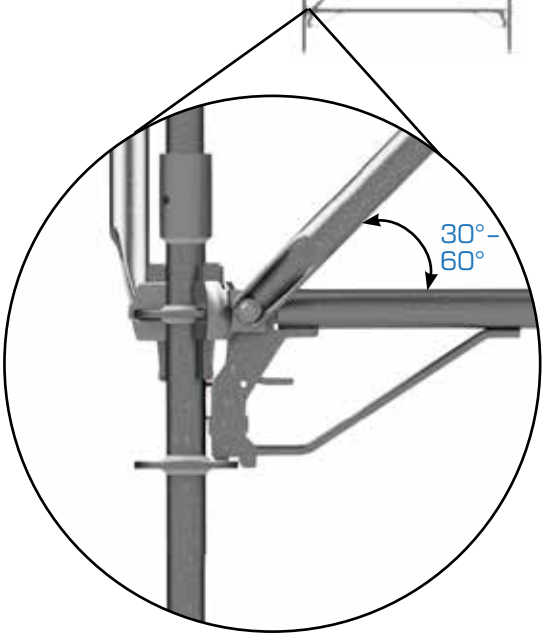
GENERAL GUIDELINES FOR BRACING (CONT'D)

NORMAL BRACING (ZIGZAG OR UNIFORM)





HEAVY-DUTY BRACING



BUILD NOTES:

1. When attaching diagonal bracing, ensure it is within one (1) foot of the closest horizontal node points.
2. Angle is most effective between 30 and 60 degrees between brace and horizontal.

All material must be inspected prior to use! See inspection guidelines on page 87.

INSTANTLOCK 2 SIDE BRACKETS

PART #	DESCRIPTION	EFFECTIVE WIDTH (INCHES)	NET WIDTH (INCHES)	OVERALL WIDTH (INCHES)	OVERALL HEIGHT (INCHES)	WEIGHT GALVANIZED (LBS.)
IL2SB24	2' Side Bracket	24	20.5	26	19.5	14.5
IL2SB36	3' Side Bracket	36	34.5	38	19.5	23.3

PART #	DESCRIPTION	MAXIMUM UNIFORM LOAD (LBS./SQ. FT.)	MAXIMUM LOAD ON END (LBS.)
IL2SB24	2' Side Bracket	500	500
IL2SB36	3' Side Bracket	330	500

2-FOOT SIDE BRACKET

3-FOOT SIDE BRACKET

MATERIAL SPECS:

All tubing is 1.90 diameter, 11-gauge (0.120 wall), high-strength, minimum 65,000 yield, and 75,000 tensile.

All material must be inspected prior to use! See inspection guidelines on page 87.

CAUTION: There is a pinch point when closing the trigger.

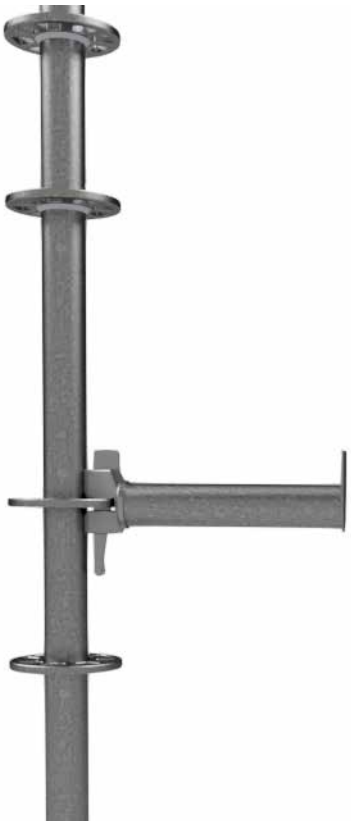
Check that the vertical pin is properly secured before handling.

WEDGE LOCK HEAD SIDE BRACKETS

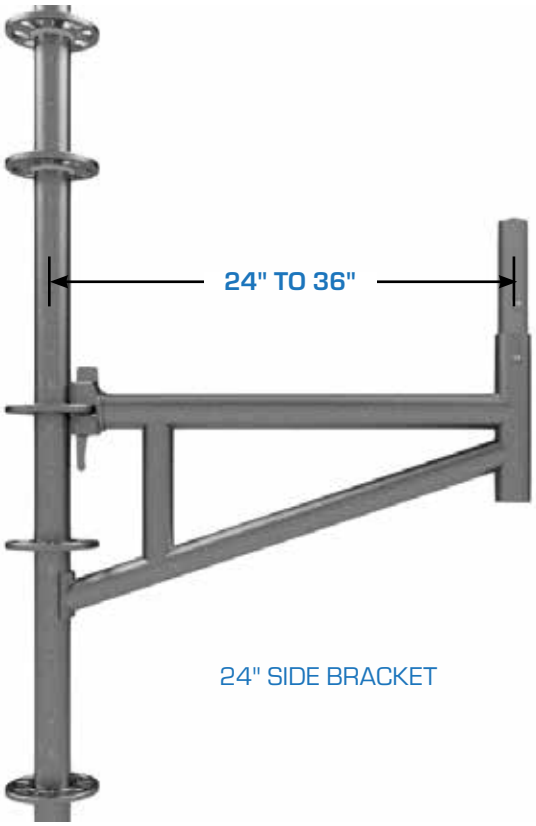
PART #	DESCRIPTION	EFFECTIVE WIDTH (INCHES)	NET WIDTH (INCHES)	WEIGHT GALVANIZED (LBS.)
RLSB11	11" Board Bracket	11	11	3.6
RLSB24	2-Board Bracket	24	19.70	12.5
RLSB34	3-Board Bracket	34	28.28	16.6
RLSB36	36" Board Bracket	36	32.08	15.2

PART #	DESCRIPTION	MAXIMUM UNIFORM LOAD (LBS./SQ. FT.)
RLSB11	11" Board Bracket	250
RLSB24	2-Board Bracket	500
RLSB34	3-Board Bracket	500
RLSB36	36" Board Bracket	500

Third-party manufactured components. Data may vary.



11" SIDE BRACKET



24" SIDE BRACKET

All material must be inspected prior to use! See inspection guidelines on page 87.

INSTANTLOCK 2
INTERMEDIATE HORIZONTAL ADAPTER

PART NUMBER	DESCRIPTION	WEIGHT (LBS.)	MAXIMUM VERTICAL LOAD (LBS.)
IL2IHAL	Locking Intermediate Horizontal Adapter	18	The maximum load is based on the weakest component. Ensure decking allowance is taken into account.
RLSC	Spigot Clamp*	8.9	

*Third-party manufactured component. Data may vary.

IL2IHAL

SPIGOT CLAMP

All material must be inspected prior to use! See inspection guidelines on page 87.

Locking intermediate horizontal adapters and spigot clamps are used to extend legs on a suitable truss or bearer to bridge around objects. Legs extending further than 4-feet 11-inches require lateral support to the bearer by tube and clamp, horizontal, deck, or horizontal at the first connection of leg above bearer.

Locking intermediate horizontal adapters, used in pairs, create a bearer at the mid-span of a bay.

BUILD NOTES:

1. With a single bearer, the maximum vertical on a locking intermediate horizontal adapter is 4-feet 11-inches.
2. The locking intermediate horizontal adapter meets guardrail loading criteria when used with a lower horizontal, but it is NextGen's recommendation to add a tube and clamp or additional means to support the guardrail.
3. The maximum load is based on the weakest component. Ensure decking allowance is taken into account.
4. Spigot clamp is not to be used as a guardrail post base unless supported in two (2) directions or additional bracing is added.

Clamp bolts should have between 40 and 65 lbs. tension. Overtightening could damage the threads, bolt or item the clamp is attached to.

CAUTION: Do not pass material to another employee with an intermediate horizontal adapter attached.

INSTANTLOCK 2 SHORT INTERMEDIATE HORIZONTAL ADAPTER

PART NUMBER	DESCRIPTION	WEIGHT (LBS.)	MAXIMUM VERTICAL LOAD (LBS.)
ILSNP	Short Locking Intermediate Horizontal Adapter	4.5	The maximum load is based on the weakest component. Ensure decking allowance is taken into account.
ILSWP	Short Locking Intermediate Horizontal Adapter with Pin	7	

ILSNP INSTALLATION

ILSNP

ILSWP

ILSWP INSTALLATION

The short locking intermediate horizontal adapter is utilized to deck around a protrusion/opening that does not require a guardrail.

The short locking intermediate horizontal adapter with pin can be utilized to support a guardrail.

BUILD NOTES:

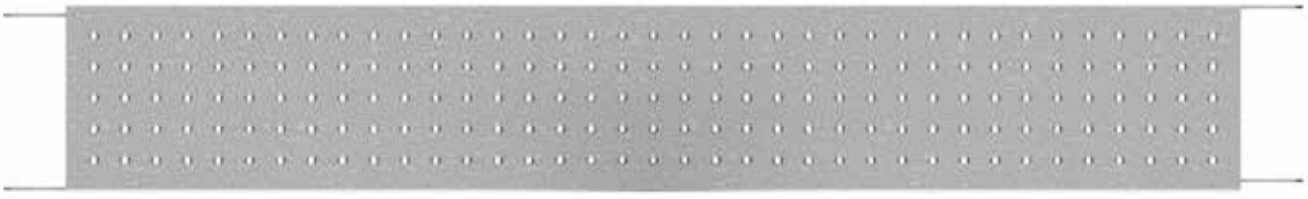
1. With a single bearer, the maximum vertical on a locking intermediate horizontal adapter or short locking intermediate horizontal adapter with pin is 4-feet 11-inches.
2. Maximum point load on a short locking intermediate horizontal guardrail post is 200 lbs. outward and vertically.
3. When a short locking intermediate horizontal adapter is supporting a board deck, the deck load must be limited to light-duty only.
4. Short locking intermediate horizontal adapters are used strictly for guardrailing around protrusions only and should not be used to add additional decking to increase the scaffold height.
5. The maximum load is based on the weakest component. Ensure decking allowance is taken into account.

CAUTION: Do not pass material to another employee with an intermediate horizontal adapter attached.

All material must be inspected prior to use! See inspection guidelines on page 87.

INSTANTLOCK 2 METAL BOARDS

PART #	DESCRIPTION	WIDTH (INCHES)	WEIGHT (LBS.)	UNIFORM LOAD (LBS./FT.)	CENTER LOAD (LBS.)
SP24	2' Plank	9	11.5	271	600
SP36	3' Plank	9	16	271	600
SP42	3.5' Plank	9	18	232	546
SP48	4' Plank	9	18.8	213	520
SP60	5' Plank	9	23.5	185	480
SP72	6' Plank	9	28.5	105	388
SP84	7' Plank	9	30.5	100	322
SP96	8' Plank	9	37.5	93	284
SP108	9' Plank	9	41.5	69	250
SP120	10' Plank	9	46.5	58	233
6SP24	6" x 2' Plank	6	10.5	271	600
6SP36	6" x 3' Plank	6	12.9	271	600
6SP42	6" x 3.5' Plank	6	14.5	232	546
6SP48	6" x 4' Plank	6	16.1	213	520
6SP60	6" x 5' Plank	6	19.4	185	480
6SP72	6" x 6' Plank	6	22.6	105	388
6SP84	6" x 7' Plank	6	25.9	100	322
6SP96	6" x 8' Plank	6	27.7	93	284
6SP108	6" x 9' Plank	6	32.4	69	250
6SP120	6" x 10' Plank	6	35.6	58	233



SIDE PROFILE

LOCKING MECHANISM

All material must be inspected prior to use! See inspection guidelines on page 87.

BUILD NOTE:

Where a possibility of uplift could occur, all boards should be securely attached to the scaffold with #9 wire, tie wraps, toe boards, filler plates or other equivalent means.

INSTANTLOCK 2 WOOD PLANKS

NextGen purchases only quality wood planks that meet OSHA requirements for lumber type and density. The following is the required inspection/storage procedure for boards:

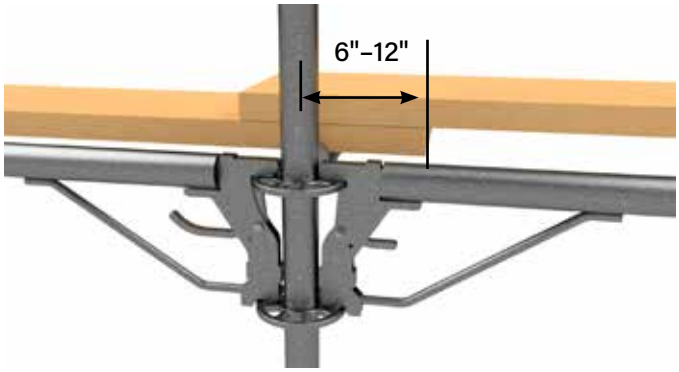
1. The boards should be inspected before they are put into service for damage and wear. All planks must be inspected routinely for damage and wear, so that they can be replaced as quickly as necessary.
2. Identification of damage: Employees shall be trained to recognize the following types of wear/damage:
    - Decay: Boards should be examined to determine if age/weathering/wear is excessive. Wood ages and reacts to usage and will begin to show checks, splits and notches. These will vary in degree, depending on the loads a plank has carried, the weather to which it has been exposed, the length of time it has been in use, etc. Planks with splits—cracks that go completely through the wood for more than a few inches—should not remain in service, as they may no longer maintain the necessary load-bearing capacity. Planks with checks—cracks that are on the surface only and do not go completely through the wood— should be watched, as the checks may develop into splits over time.
    - Damage: Does the board contain any notches, cuts or other visual damage that would render it unsafe to use? Notched plank can lead to problems since a portion of the plank is missing, thereby weakening the plank at that particular area. If a scaffold plank has been used as a mudsill, it should not be returned to service on a platform. Moisture from standing water, as well as point-loading from the scaffold legs may have weakened it, making it unable to bear the weight that will be placed on it.
    - Chemical/heat damage: Has the board been exposed to excessive chemicals/heat (soaked with oil, scorch marks)? Scaffold planks that have visible chemical or scorch marks must be removed from service.
    - Surface covering: Is the surface free from items that may cause a slip (oil/tar/etc.)? OSHA [1926.451(b)(9)] says that scaffold planks that have accumulated layers of mortar, grout, paint, plaster, etc., are not permitted to remain in service since it is impossible to determine their condition. Dangerous splits may be hidden underneath those coatings.
    - Shrinkage: Has the board size decreased past its useful size?
    - Deflection: The flex or "give" of a plank can indicate its condition. OSHA calls for deflection criteria of L/60 (the length of span in inches divided by 60) to get the maximum deflection limit at center span in inches. An example would be a seven-foot (84-inch) span between scaffold frame supports: 84/60 = 1.40 inches. Therefore, you'd never want to allow a plank to deflect more than 1 ⅜ inches at the middle of that length span, regardless of type of plank being used. Only sample testing should be performed since test loading can damage the board.

All material must be inspected prior to use! See inspection guidelines on page 87.

INSTANTLOCK 2 WOOD PLANKS (CONT'D)

PART #	DESCRIPTION	MAXIMUM LOADING USING FULL THICKNESS UNDRESSED LUMBER (LBS./SQ. FT.)	WEIGHT (LBS.)	MAXIMUM SCAFFOLD SPAN (FT.)
WP-4	4' Wood Plank	75	18	2
WP-6	6' Wood Plank	75	27	4
WP-8	8' Wood Plank	50	36	6
WP-10	10' Wood Plank	25	45	8
WP-12	12' Wood Plank	25	54	10

Allowable loads when rated for scaffold use include OSHA 4:1 safety factor.



MAINTENANCE NOTES:

1. When not in use, all wood planks should be stored above ground on dunnage to keep moisture from entering the bottom of the boards.
2. Additionally, all boards should have some sort of wood slats or spacers between layers to allow for air circulation through the boards.
3. Most important, a tarp or something as simple as a sheet of plywood should be placed over the top of the boards to prevent moisture from dropping down through the stack. Ideally, indoor storage is best.

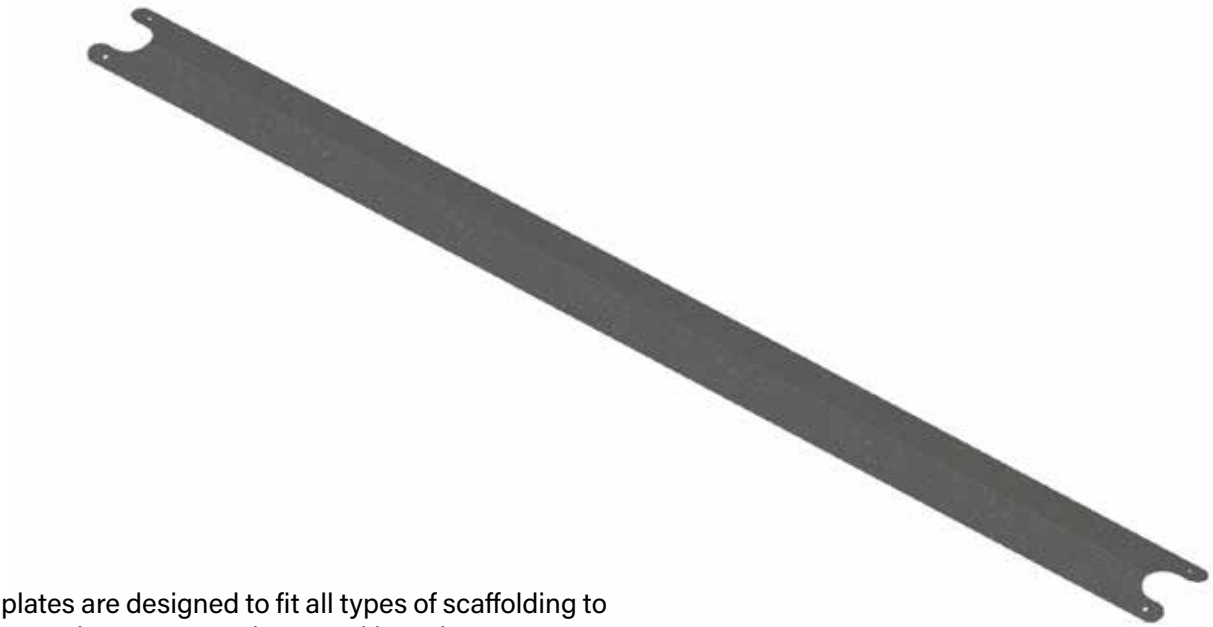
BUILD NOTE:

Where a possibility of uplift could occur, all boards should be securely attached to the scaffold with #9 wire, tie wraps, toe boards, filler plates or other equivalent means.

All material must be inspected prior to use! See inspection guidelines on page 87.

INSTANTLOCK 2 FILLER PLATES

PART #	DESCRIPTION	WEIGHT (LBS.)
FP24	Filler Plate 24"	3.1
FP36	Filler Plate 36"	4.7
FP42	Filler Plate 42"	5.5
FP48	Filler Plate 48"	6.3
FP60	Filler Plate 60"	7.8
FP72	Filler Plate 72"	9.4
FP84	Filler Plate 84"	10.9
FP96	Filler Plate 96"	12.5
FP108	Filler Plate 108"	14.1
FP120	Filler Plate 120"	15.6



Filler plates are designed to fit all types of scaffolding to cover gaps between wood or metal boards.

Filler plates come in various lengths and contain holes that allow the filler plate to be tied or nailed in place.

Filler plates are designed with wider slots on one end to allow it to be installed without bending.

MATERIAL SPECS:

All filler plates are made from 10-gauge galvanized steel.

BUILD NOTE:

When tying filler plates, a single strand of #9 wire at each end is required.

All material must be inspected prior to use! See inspection guidelines on page 87.

INSTANTLOCK 2 DUCKBILL PLANK

PART NUMBER	DESCRIPTION	WIDTH (INCHES)	OVERALL LENGTH (INCHES)	WEIGHT (LBS.)	UNIFORM LOAD (LBS./FT.)	CENTER LOAD (LBS.)
DBP24	2' Duckbill Plank	9	42	12.5	250	500
DBP36	3' Duckbill Plank	9	54	17	228	500
DBP42	42" Duckbill Plank	9	60	19	211	500
DBP48	4' Duckbill Plank	9	66	19.8	192	500
DBP60	5' Duckbill Plank	9	78	24.5	185	480
DBP72	6' Duckbill Plank	9	90	29.5	105	388
DPB84	7' Duckbill Plank	9	102	31.5	100	322
DBP96	8' Duckbill Plank	9	114	38.5	93	284
DBP108	9' Duckbill Plank	9	126	42.5	69	250
DBP120	10' Duckbill Plank	9	138	47.5	58	233
6DBP24	6" x 2' Duckbill Plank	6	42	10.5	271	600
6DBP36	6" x 3' Duckbill Plank	6	54	12.9	271	600
6DBP42	6" x 42" Duckbill Plank	6	60	14.5	232	546
6DBP48	6" x 4' Duckbill Plank	6	66	16.1	213	520
6DBP60	6" x 5' Duckbill Plank	6	78	19.4	185	480
6DBP72	6" x 6' Duckbill Plank	6	90	22.6	105	388
6DBP84	6" x 7' Duckbill Plank	6	102	25.9	100	322
6DBP96	6" x 8' Duckbill Plank	6	114	27.7	93	284
6DBP108	6" x 9' Duckbill Plank	6	126	32.4	69	250
6DBP120	6" x 10' Duckbill Plank	6	138	35.6	58	233

All material must be inspected prior to use! See inspection guidelines on page 87.

Duckbill planks (overlapping steel planks) can be used to fill gaps in decks created by obstructions. They rest on the two (2) adjacent steel planks or steel planks and bearer, thereby reducing the need for wood planking.

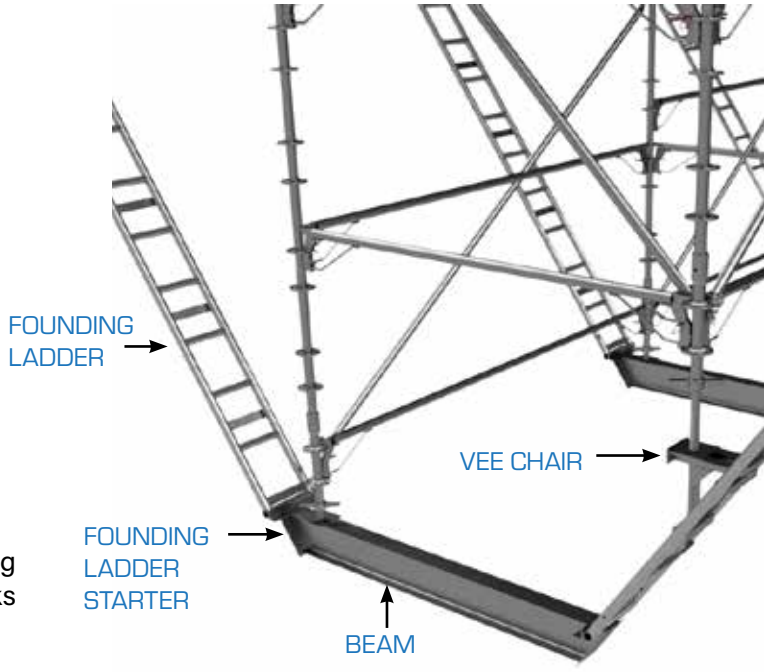
Duckbill planks are attached to the planks they are resting on with #9 wire or self-tapping screws through the holes provided in the plank.

BUILD NOTE:

1. The loading of the duckbill plank and adjacent planks must be taken into consideration when designing the scaffold
2. There must be a minimum overlap of 5 inches at each end of the plank on the bearing surface to prevent slippage.

PART #	DESCRIPTION	WEIGHT (LBS.)	MAXIMUM SUPPORTED LOADS (LBS.)
BSIB06	6' Foundation I-Beam	78	5,500
Bchair	Static Ladder Chair	16.5	5,500
BSAVC	Adjustable Vee Chair	19.5	5,500
BSF1	12" Founding Ladder	13.4	5,500
BSF3	36" Founding Ladder	29.1	5,500
BSF5	60" Founding Ladder	44.5	5,500
BSF6	72" Founding Ladder	48.5	5,500
BSFS	Founding Ladder Starter	7.5	5,500
BSSB10	10' Saddle Brace	17.5	5,500

Third-party manufactured components. Data may vary.



Founding ladder vee chairs are attached to the founding ladders and provide a level surface for the leveling jacks to rest.

Founding ladders rest on the slope of the boiler tubes and the foundation beams.

BUILD NOTES:

1. All OSHA and plant regulations governing safety shall be followed, whichever is stricter.
2. The area supporting the foundation beams must be able to handle the required imposed loads.
3. Attached equipment (i.e. verticals, etc.) may be the load limiting factor.

All material must be inspected prior to use! See inspection guidelines on page 87.

INSTANTLOCK 2 LADDER

PART #	DESCRIPTION	OVERALL LENGTH (INCHES)	MAX. TOTAL VERTICAL LOAD ON LADDER (LBS.)	MAX. LOAD ON ONE (1) LADDER RUNG (LBS.)	WEIGHT GALVANIZED (LBS.)
LA10	10' ladder	118	1,000	500	42
LA9	9' ladder	106.5	1,000	500	36
LA8	8' ladder	95	1,000	500	34
LA7	7' ladder	83.5	1,000	500	32.1
LA5	5' ladder	60.5	1,500	500	22.2
LA4	4' ladder	49	1,500	500	18.3
LA3	3' ladder	37.5	2,000	500	14.3
LA2	2' ladder	26	2,000	500	8
LA1	1' ladder	14.5	2,000	500	4.1

All material must be inspected prior to use! See inspection guidelines on page 87.

BUILD NOTES:

1. When installing ladders, the female end should always be placed at the bottom to prevent debris from collecting in the end of the ladder.
2. Ladders are not designed to support loads, such as walkways, pipe supports, pipe hangers, lifting rigs, etc.
3. Ladders should only be used for access to scaffolds.
4. The ladder brackets may limit the load carrying ability of the ladder.

INSTANTLOCK 2 LADDER BRACKET

PART #	DESCRIPTION	OVERALL WIDTH (INCHES)	MAX TOTAL VERTICAL LOAD ON BRACKET (LBS.)	WEIGHT (LBS.)
LB3	Clamp Bracket	12	600	12.3

Clamp brackets may be installed on the horizontal bars or vertical posts.

BUILD NOTE:

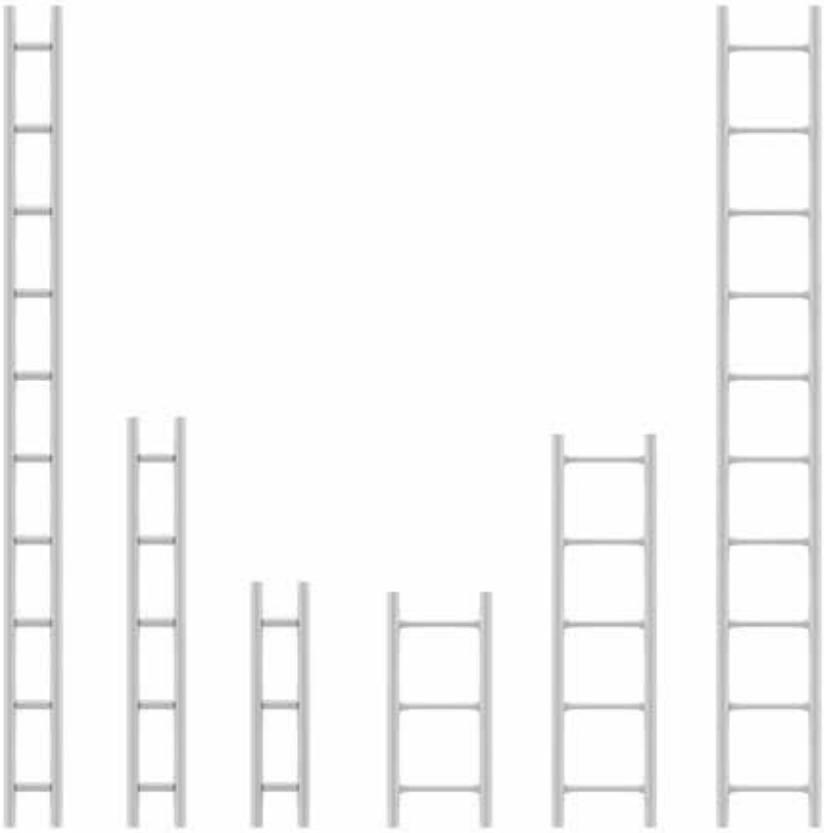
1. Use more brackets when necessary to carry greater loads. The ladder may be the load limiting member.
2. The first ladder of each ladder section must have a ladder bracket at the bottom to start ladder runs. Every ladder will have a ladder bracket at the top of each ladder rung (including starter ladder).

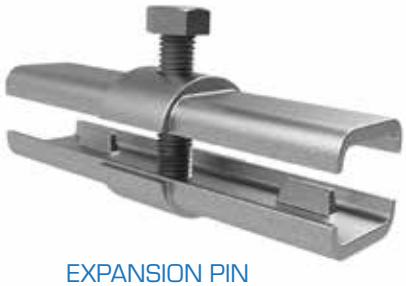
Clamp bolts should have between 40 and 65 lbs. tension. Overtightening could damage the threads, bolt or item the clamp is attached to.

All material must be inspected prior to use! See inspection guidelines on page 87.

INSTANTLOCK 2 ALUMINUM LADDER

PART #	DESCRIPTION	OVERALL LENGTH (INCHES)	MAX. TOTAL VERTICAL LOAD ON LADDER	MAX. LOAD ON ONE (1) LADDER RUNG	WEIGHT GALVANIZED (LBS.)
ALA10	10' Aluminum Ladder	120	1,000	500	24
ALA5	5' Aluminum Ladder	60	1,500	500	12
ALA3	3' Aluminum Ladder	36	2,000	500	7
8-ALA10	8" wide 10' Aluminum Ladder	120	1,000	500	22
8-ALA5	8" wide 5' Aluminum Ladder	60	1,500	500	11
8-ALA3	8" wide 3' Aluminum Ladder	36	2,000	500	6.5
AEP	Expansion Pin	7.5	NA	NA	2.5





EXPANSION PIN

All material must be inspected prior to use! See inspection guidelines on page 87.

BUILD NOTE:

When installing aluminum ladders, the expansion pin should always be securely tightened.

Expansion pin bolts should have between 40 and 65 lbs. tension. Overtightening could damage the threads, bolt or ladders the expansion pin is attached to.

INSTANTLOCK 2 SNOW LADDER

PART #	DESCRIPTION	OVERALL LENGTH (INCHES)	MAX. TOTAL VERTICAL LOAD ON LADDER (LBS.)	MAX. LOAD ON ONE (1) LADDER RUNG (LBS.)	WEIGHT GALVANIZED (LBS.)
SLA5	5' Snow Ladder	60.5	1,500	500	19.5
SLA3	3' Snow Ladder	37.5	2,000	500	10
SLB1	Snow Ladder Bracket	—	—	—	3

Snow ladders provide a greater non-slip tread for use in snow, ice or other slippery conditions.

Rugged, extra-grip rungs help prevent slips.

Snow ladders are not compatible with regular ladder brackets and must use the clamp and pin style snow ladder bracket. The base of snow ladders must be placed on mudsill, grade or the deck.

BUILD NOTE:

1. Snow ladders are not designed to support loads, such as walkways, pipe supports, pipe hangers, lifting rigs, etc. Ladders should only be used for access to scaffolds.
2. When installing ladders, the female end should always be placed at the bottom to prevent debris from collecting in the end of the ladder.

Clamp bolts should have between 40 and 65 lbs. tension. Overtightening could damage the threads, bolt or item the clamp is attached to.

All material must be inspected prior to use! See inspection guidelines on page 87.

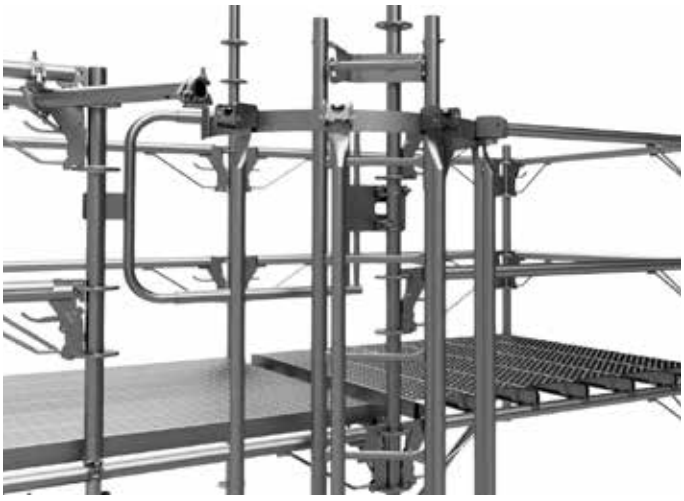
INSTANTLOCK 2 LADDER CAGE

PART NUMBER	DESCRIPTION	WEIGHT (LBS.)
LC	Ladder Cage Hoop	10
SLC	Snow Ladder Cage Hoop	12
LC3/4-L	Ladder Cage ¾ Hoop Left	9
LC3/4-R	Ladder Cage ¾ Hoop Right	9
SLC3/4-L	Snow Ladder Cage ¾ Hoop Left	11
SLC3/4-R	Snow Ladder Cage ¾ Hoop Right	11
LCB4	Ladder Cage Brace 4'	3.5
LCB2	Ladder Cage Brace 2'	1.8

Ladder Cage Hoop

3/4 Hoop Left

3/4 Hoop Right



Ladder cage accessories allow ladder cages to be added to most scaffold ladders.

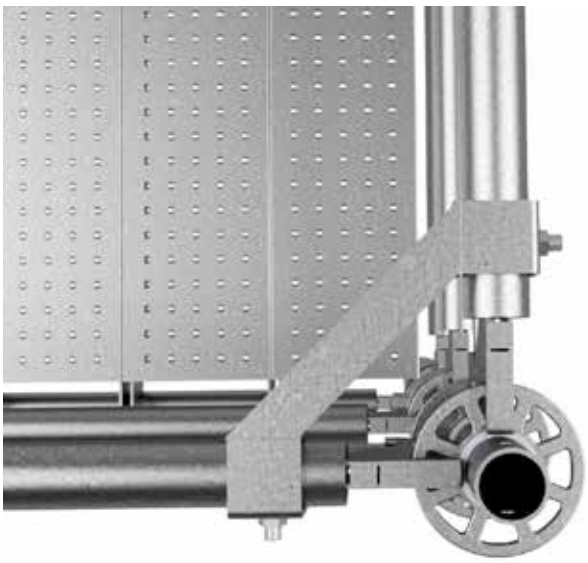
BUILD NOTES:

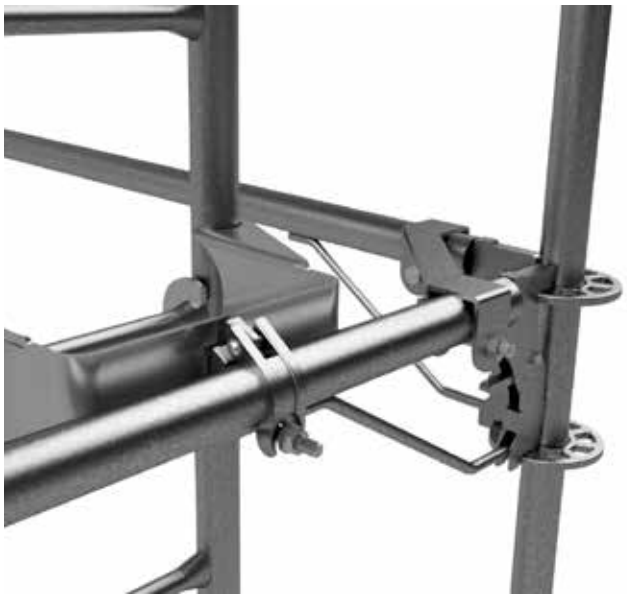
1. The ladder cage should always be removed starting from the bottom towards the top to prevent the swinging of brace components while being dismantled.
2. Ladder cage ¾ hoops are used to create an opening in the ladder cage to exit to different deck elevations.
3. Tube and clamp is used to provide a handrail at the opening and can be adjusted to fit any scaffold design.
4. Any combination of horizontals/tube and clamp can be used for the handrail.
5. The installer should ensure the cage extends down the ladder to a point not less than seven (7) feet and no more than eight (8) feet above the base of the ladder. It should also extend a minimum of 42 inches above the top of the landing, unless other acceptable protection is provided.

All material must be inspected prior to use! See inspection guidelines on page 87.

INSTANTLOCK 2 RIGHT-ANGLE BRACE

PART NUMBER	DESCRIPTION	WEIGHT (LBS.)
RAB	Right-Angle Brace	3.5





A right-angle brace is used to ensure the scaffold stays square or to provide additional corner support for the end connectors.

Right-angle braces can be used to support a stand-off (90-degree) ladder access.

Right-angle braces can be used for ladder additions or bracing on scaffolds with casters.

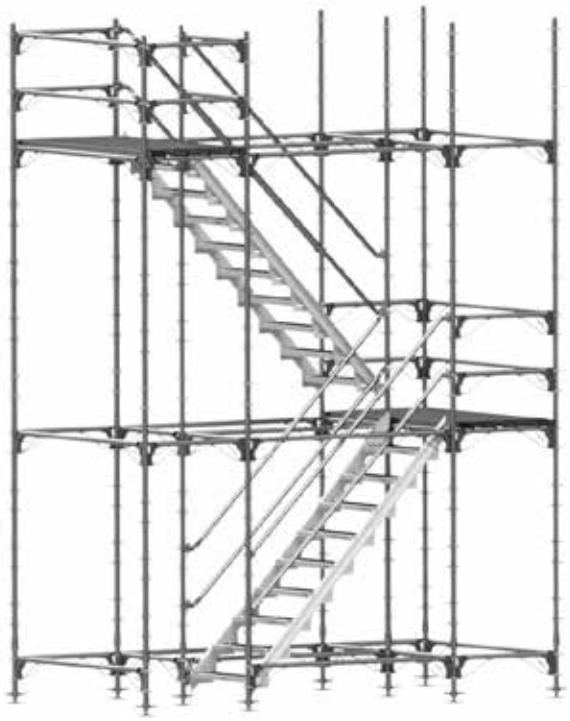
BUILD NOTE:

Braces must have bolts.

All material must be inspected prior to use! See inspection guidelines on page 87.

INSTANTLOCK 2 STAIR SYSTEM

PART NUMBER	DESCRIPTION	WEIGHT GALVANIZED (LBS.)
SSS7	7' Stair Stringer	44.1
SST30	30" Stair Tread	11.7
SST36	36" Stair Tread	13.9
SST42	42" Stair Tread	16.5
DSB	Handrails (Pin Removed or Snap Button Unlocked)	24.8



Stair systems are designed to provide safe access for scaffolds. Stairs can be designed using side brackets or multi-bay scaffolds. Stairs are designed for 30-, 36- and 42-inch widths. All boards are self-locking, no wiring is required.

BUILD NOTES:

1. Stairs are rated for light duty, 25 lbs./sq. ft..
2. Handrails are comprised of diagonal braces.

WARNING: Improper use of stairs could cause serious injury. Always use handrails and step in the center of the treads. Walk down the stair tower, do not run, do not skip any steps. Non-slip adhesive tape may be applied to the edge of the metal boards for additional safety. Users should maintain 3-point contact with the stair.

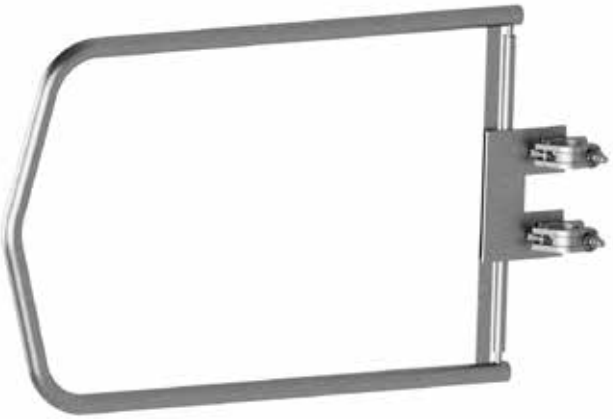
Only metal boards used on stair risers should be used.

All material must be inspected prior to use! See inspection guidelines on page 87.

INSTANTLOCK 2 SAFETY GATE

PART #	DESCRIPTION	WEIGHT (LBS.)
SG2	Safety Gate with Clamps	21

Safety gates are designed to provide safe access for scaffolds and can be installed on any 36-inch wide scaffold bay. For greater versatility, the safety gate is equipped with clamps and designed to fit all types of scaffolding.



BUILD NOTES:

1. To install a safety gate on a larger-sized scaffold bay (5-feet to 10-feet), a 36-inch side bracket, heavy-duty intermediate horizontal adapter, gate post or gate adapter can be installed with shorter bars to support the gate. The gate must only be attached to the existing vertical post and not to the end of the side bracket, heavy-duty intermediate horizontal adapter, gate post or gate adapter.
2. To properly install the safety gate, first place the gate on the vertical and lightly secure the clamps. Then, rotate the gate around the vertical toward the outside of the scaffold until the spring has enough tension that the gate remains closed. Finally, tighten the clamps to hold the gate in place. When properly placed, the strike plate should touch 50% or more of the vertical post. During periodic scaffold inspections, the gate may require that the clamps be loosened and the gate rotated to re-tighten the spring.
3. InstantLock 2 material or tube and clamp should be used to close off areas greater than 36 inches.
4. Gates can be used on bays smaller than 36 inches, as long as they open and latch properly.
5. The safety gate may be flipped to allow the gate to swing in either direction.

MAINTENANCE NOTES:

1. Gates should be periodically maintained. If they have grease certs, they should be filled with a white lithium grease (ST-80 High-Performance Grease or its equivalent). Gates without grease certs should be lubed with a 10-weight oil or dry graphite.
2. WD-40 can be used before application of grease or oil to loosen old grease and remove any rust buildup. The gate must be cycled (swung in both directions) as many times as necessary to allow the oil/grease to work in and allow the gate to swing freely.

Clamp bolts should have between 40 and 65 lbs. tension. Overtightening could damage the threads, bolt or item the clamp is attached to.

All material must be inspected prior to use! See inspection guidelines on page 87.

INSTANTLOCK 2 HEAVY-DUTY GATE POST

PART #	DESCRIPTION	WEIGHT (LBS.)
IL2HDGP	InstantLock 2 Heavy-Duty Gate Post	25

All material must be inspected prior to use! See inspection guidelines on page 87.

The InstantLock 2 heavy-duty gate post is used to create a custom-width swing gate opening for access.

BUILD NOTES:

1. The gate post is not an approved tie-off point.
2. All swing gate requirements remain the same when using a gate post. (See page 45.)
3. Gate post meets 200 lbs. load rating for handrail systems.
4. Confirm bottom wedge is driven before attaching handrail system.

INSTANTLOCK 2 GATE ADAPTER

PART #	DESCRIPTION	WEIGHT (LBS.)
IL2GA	InstantLock 2 Gate Adapter	21.4

Third-party manufactured component. Data may vary.

The InstantLock 2 gate adapter is used to create a custom-width swing gate opening for access.

BUILD NOTES:

1. The gate adapter is not an approved tie-off point.
2. All swing gate requirements remain the same when using a gate adapter. (See page 45.)
3. The gate adapter meets 200 lbs. load rating for handrail systems.
4. Confirm bottom wedge is driven before attaching handrail system.

All material must be inspected prior to use! See inspection guidelines on page 87.

ALUMINUM TOE BOARD

PART #	DESCRIPTION	WIDTH (IN.)	WEIGHT (LBS.)
ATB-24	2' Aluminum Toe Board	24	6
ATB-36	3' Aluminum Toe Board	36	8
ATB-42	42" Aluminum Toe Board	42	9
ATB-48	4' Aluminum Toe Board	48	10
ATB-60	5' Aluminum Toe Board	60	12
ATB-72	6' Aluminum Toe Board	72	13.5
ATB-84	7' Aluminum Toe Board	84	15.5
ATB-96	8' Aluminum Toe Board	96	17.5
ATB-108	9' Aluminum Toe Board	108	19.5
ATB-120	10' Aluminum Toe Board	120	21

The aluminum toe board with locking clips, is designed to fit all types of scaffold material. The toe board locks the scaffold boards down—eliminating the need to wire boards to the horizontals. Installation times are greatly reduced with this equipment.

BUILD NOTE:

Ensure the push button is exposed when engaging the toe board.

CAUTION: Holes in the toe board are for nailing to wood planks. Use caution when nailing to prevent damage to the toe board.

All material must be inspected prior to use! See inspection guidelines on page 87.

ROSETTE CLAMP

PART #	DESCRIPTION	WEIGHT (LBS.)
RC	Rosette Clamp	2.5

Third-party manufactured component. Data may vary.

The rosette clamp can be installed between existing rosettes to create a connection point for horizontals or trusses.

Clamp bolts should have between 40 and 65 lbs. tension. Overtightening could damage the threads, bolt or item the clamp is attached to.

All material must be inspected prior to use! See inspection guidelines on page 87.

RING LOCK SUSPENSION CONNECTOR

PART #	DESCRIPTION	WEIGHT (LBS.)	MAXIMUM ALLOWABLE LOAD (LBS.)
RLSC	Ring Lock Suspension Connector	8.8	5,000

Third-party manufactured component. Data may vary.

All material must be inspected prior to use! See inspection guidelines on page 87.

The ring lock suspension connector is used to connect two (2) verticals together when scaffold is suspended. This component should only be used in pairs.

BUILD NOTES:

1. Ring lock suspension connectors are to be used in pairs when suspending scaffolds.
2. Required on every scaffold vertical at each connection point.

TWIN WEDGE HEAD

PART #	DESCRIPTION	WEIGHT (LBS.)
RLTW	Twin Wedge Head	1.6

Third-party manufactured component. Data may vary.

TWIN WEDGE HEAD
IN SHORING APPLICATION
AS SEEN FROM ABOVE

InstantLock 2 can be used for shoring applications, however it must be designed by an engineer.

For two or four legs, the twin wedge head should be placed in three- (3) foot increments.

BUILD NOTES:

1. Standard safety factor of 4:1 for typical scaffold and 2.5:1 for shoring.
2. Shoring scaffold must be tied every 13 feet minimum.

All material must be inspected prior to use! See inspection guidelines on page 87.

TWIN WEDGE HEAD (CONT'D)

UNBRACED POST LENGTH (INCHES)	MAXIMUM ALLOWABLE COMPRESSIVE LOAD WHEN RATED FOR SCAFFOLD USE (LBS.)	MAXIMUM ALLOWABLE COMPRESSIVE LOAD WHEN RATED FOR SHORING USE (LBS.)
DATA PENDING ANALYSIS OF LOADING DATA.		

TWIN WEDGE HEAD
IN SHORING APPLICATION
(4 LEGS)

All material must be inspected prior to use! See inspection guidelines on page 87.

BUILD NOTE:

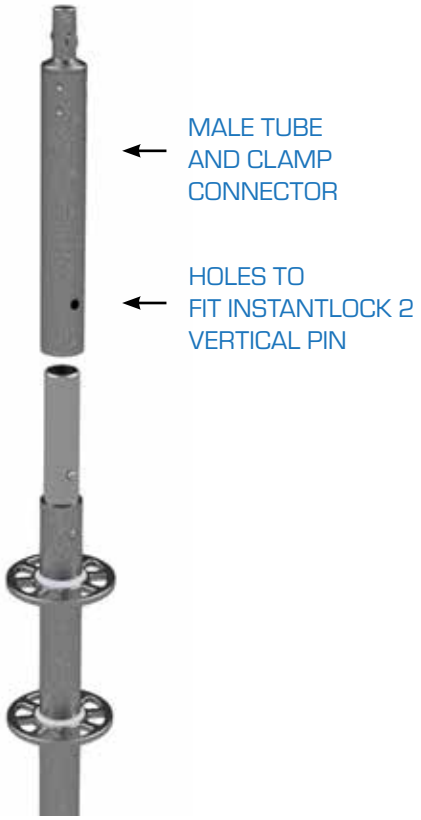
Diagonal bracing is comprised of standard 1.9-inch tube and 3.5- x 1.9-inch swivel clamps.

ENGINEERING:

1. Allowable loads when rated for scaffold use, include OSHA (4:1) factor.
2. Allowable loads when rated for shoring use, include OSHA (2.5:1) factor.
3. **All shoring applications shall have a drawing provided by a NextGen Engineer and require a P.E. stamp.**

INSTANTLOCK 2 USED WITH TUBE AND CLAMP

PART #	DESCRIPTION	WEIGHT (LBS.)
TCA	Tube and Clamp Adapter	3.5
TU-20	20' Tube	30
TU-16	16' Tube	27
TU-13	13' Tube	22
TU-10	10' Tube	21
TU-8	8' Tube	18
TU-6	6' Tube	14
TU-4	4' Tube	11
SWC	Swivel Clamp	3
RAC	Right-Angle Clamp	4
SBC	Swivel Beam Clamp	4
RBC	Rigid Beam Clamp	4
MBP-1	Male Base Plate	5



The tube and clamp adapter is designed to provide a safe, strong method to transition from InstantLock 2 to tube and clamp.

MATERIAL SPECS:

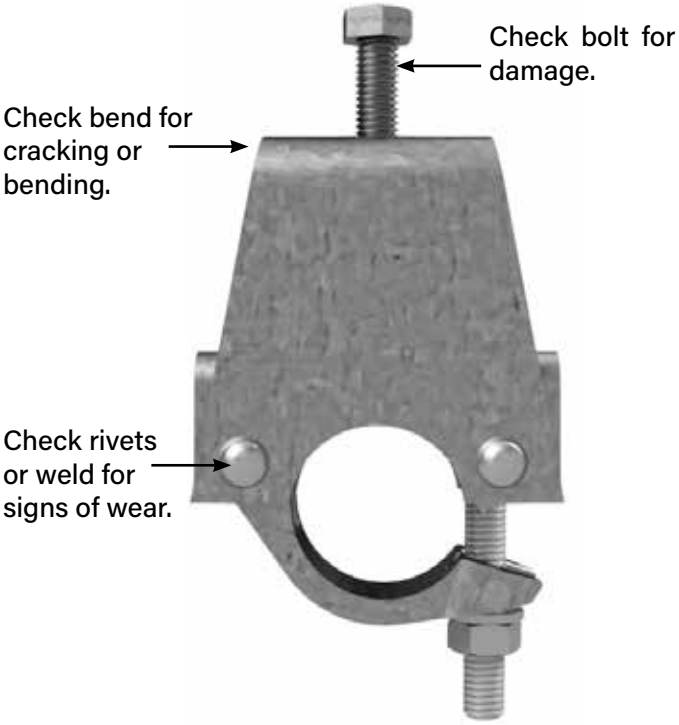
InstantLock 2 material is 100% compatible with most types of tube and clamp.

BUILD NOTES:

When tube and clamp scaffolding is used to continue a vertical above the InstantLock 2 system, the load ratings and restrictions of the tube and clamp manufacturer must be used.

All material must be inspected prior to use! See inspection guidelines on page 87.

INSTANTLOCK 2 USED WITH TUBE AND CLAMP



All material must be inspected prior to use! See inspection guidelines on page 87.

BUILD NOTES:

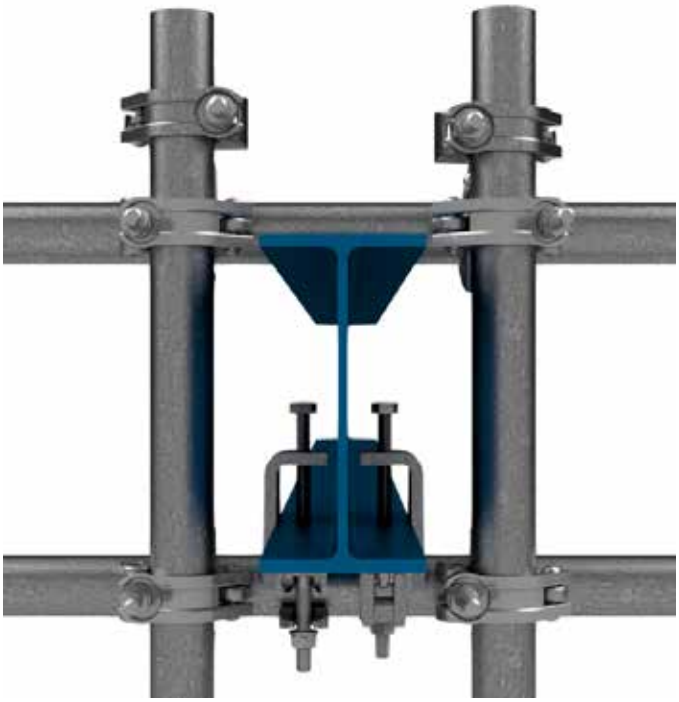
1. Tube and clamp material has been manufactured by many different vendors. There is no easy way to identify the manufacturer or the quality of material used in its construction. Always assume that the material is of lesser quality and use the most conservative designs when building with this material.
2. Tube and clamp material must be assembled in strict accordance with all current Federal and State guidelines. (See OSHA 1926.452(b) "Tube and coupler scaffolds.")

MATERIAL NOTES:

1. The strength of the scaffold is greatly affected by the torque on the bolted connections.
2. Tube lengths of 16 and 20 feet, without proper support, may not meet minimum requirements for scaffold loads.
3. Most scaffold tube material is manufactured with 1.90 diameter tubing.
4. Rigid beam clamps and swivel beam clamps must be inspected for damage/cracking at the weld and the top bend of the clamp. Beam clamps have been know to fracture at the top bend area.

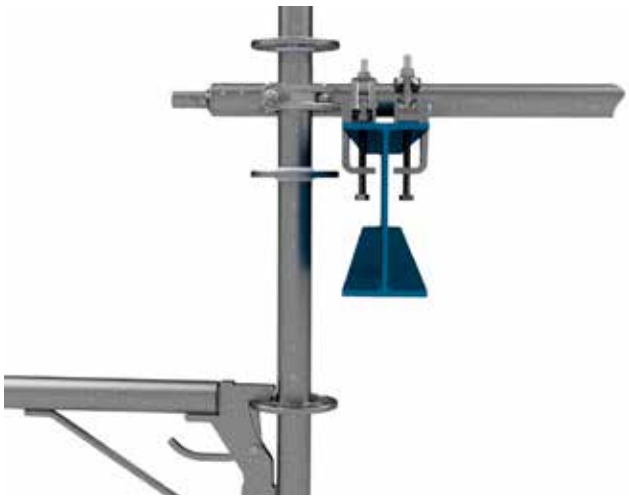
Clamp bolts should have between 40 and 65 lbs. tension. Overtightening could damage the threads, bolt or item the clamp is attached to.

INSTANTLOCK 2 USED WITH TUBE AND CLAMP
WHEN TYING TO AN EXISTING STRUCTURE



YOKE TIE FOR BEAM

TYING SCAFFOLD TO COLUMN OR BEAM



YOKE TIE FOR BEAM

1. Secure the beam from all sides using tube and clamp as shown.
2. Use backup clamps to prevent slippage of the tubing.

BUILD NOTES:

1. Swivel beam clamps and rigid beam clamps should be used only for scaffold bracing or as shown.
2. To support a scaffold structure, use tube and clamp or heavy-duty support beam clamps designed for such use.

For other configurations contact the NextGen Engineering Department.

CAUTION: When installing swivel and rigid beam clamps for hanging scaffold, please consult pages 56-58 of this manual for typical configurations and capacities, as well as proper installation of beam clamps.

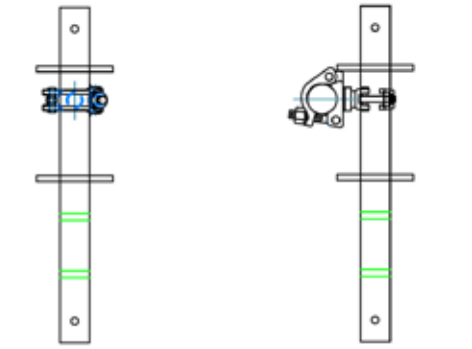
TYING SCAFFOLD TO COLUMN OR BEAM

1. Clamps are to always be used in pairs.
2. When possible, use the beam clamps on the top flange of the beam.
3. Beam clamps are attached to top of the I-beam where the load is not on the clamp bolt.
4. When the top of the beam cannot be reached because of an obstruction, tube and clamp cut to length or tubing designed to fit between two beams can be used for support.

All material must be inspected prior to use! See inspection guidelines on page 87.

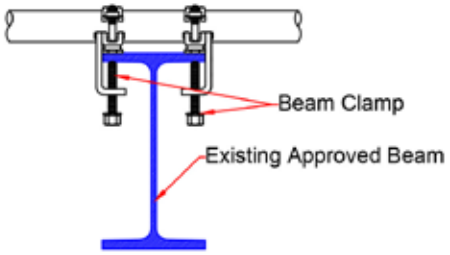
SCAFFOLD SUPPORTED FROM TOP OF BEAM FLANGE WITH INSTANTLOCK 2 VERTICAL

1



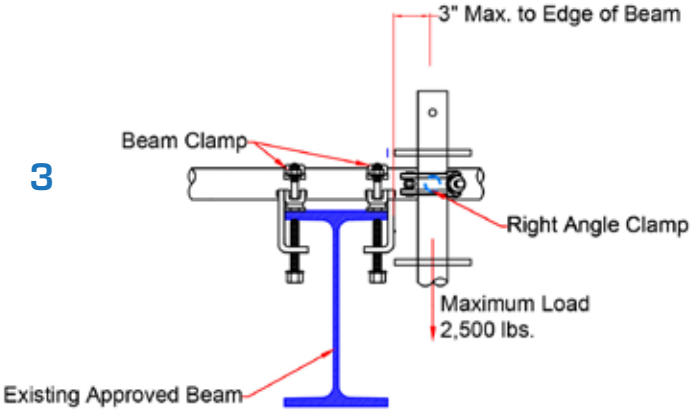
Vertical With Right Angle Clamp Attached

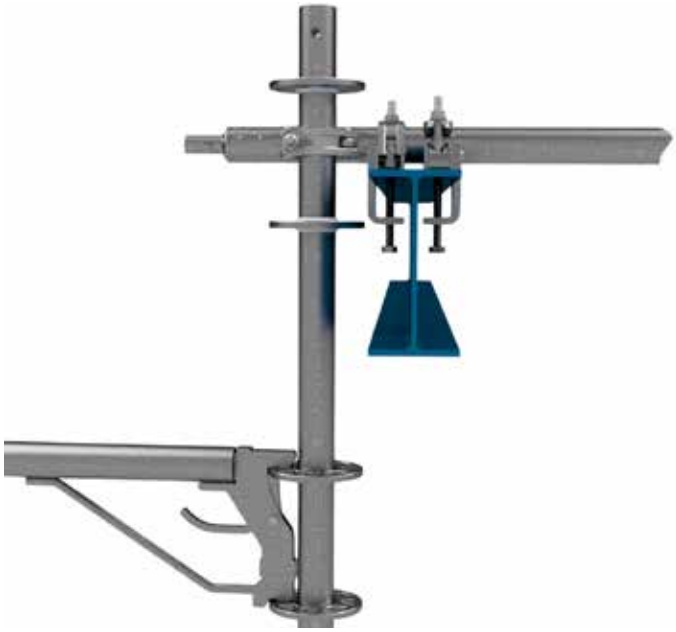
2



Scaffold From Top of Beam Beam Clamps & Tube Attached

3





BUILD NOTES:

1. Install right-angle clamp directly below any rosette of the InstantLock 2 vertical.
2. Connect tube and two (2) beam clamps to the top flange of the approved beam.
3. Connect the vertical to the tube clamped to the bottom of beam.

MATERIAL NOTE:

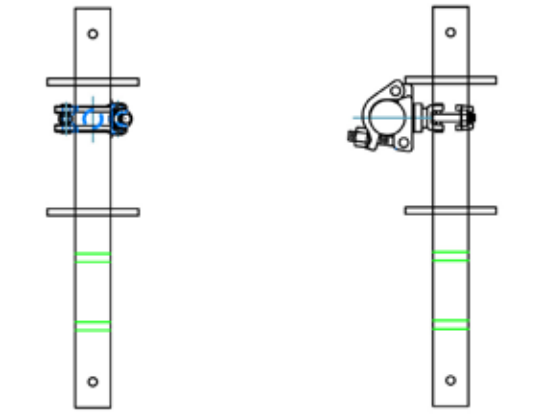
All tube used to be 1.9" OD, 1.6" ID standard tube and coupler material.

Clamp bolts should have between 40 and 65 lbs. tension. Overtightening could damage the threads, bolt or item the clamp is attached to.

All material must be inspected prior to use! See inspection guidelines on page 87.

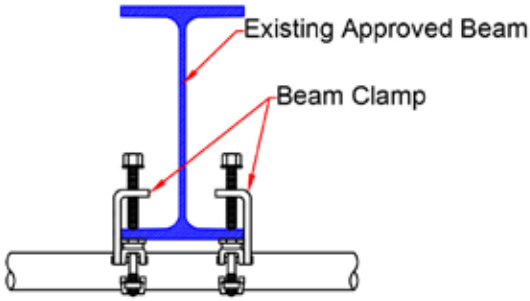
SCAFFOLD SUPPORTED FROM BOTTOM OF BEAM FLANGE WITH INSTANTLOCK 2 VERTICAL

1



Vertical With Right Angle Clamp Attached

2



Scaffold From Bottom of Beam Beam Clamps & Tube Attached

BUILD NOTES:

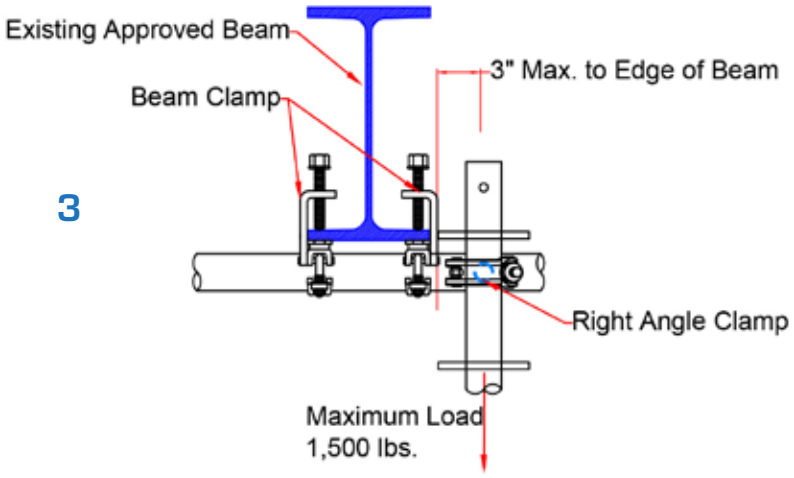
1. Install right-angle clamp directly below any rosette of the InstantLock 2 vertical.
2. Connect tube and two (2) beam clamps to the bottom flange of the approved beam.
3. Connect the vertical to the tube clamped to the bottom of beam.

MATERIAL NOTE:

All tube used to be 1.9" OD, 1.6" ID standard tube and coupler material.

Clamp bolts should have between 40 and 65 lbs. tension. Overtightening could damage the threads, bolt or item the clamp is attached to.

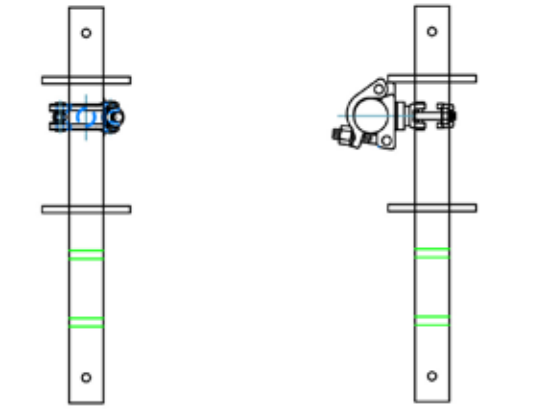
3



All material must be inspected prior to use! See inspection guidelines on page 87.

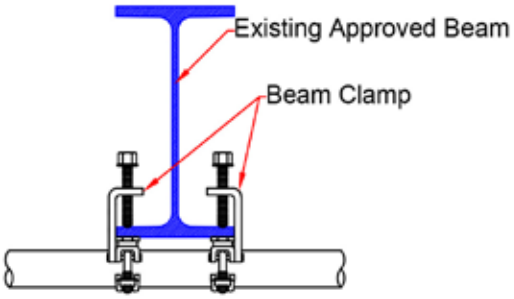
SCAFFOLD SUPPORTED FROM BOTTOM OF BEAM FLANGE WITH INSTANTLOCK 2 VERTICAL WITH TUBE & CLAMP AT 45-DEGREE MINIMUM TO LOADED VERTICAL

1



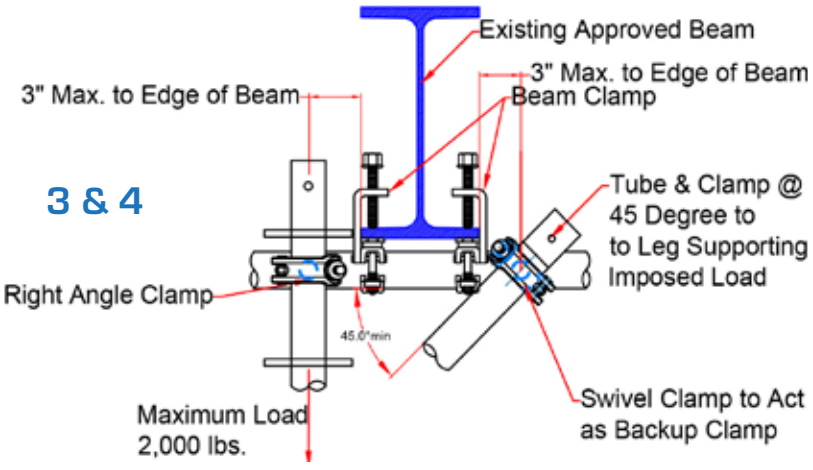
Vertical With Right Angle Clamp Attached

2



Scaffold From Bottom of Beam Beam Clamps & Tube Attached

3 & 4



BUILD NOTES:

1. Install right-angle clamp directly below any rosette of the InstantLock 2 vertical.
2. Connect tube and two (2) beam clamps to the bottom flange of the approved beam.
3. Connect the vertical to the tube clamped to the bottom of beam.
4. Install 45-degree support tube and clamp bracing.

MATERIAL NOTE:

All tube used to be 1.9" OD, 1.6" ID standard tube and coupler material.

Clamp bolts should have between 40 and 65 lbs. tension. Overtightening could damage the threads, bolt or item the clamp is attached to.

All material must be inspected prior to use! See inspection guidelines on page 87.

CANTILEVERED SCAFFOLD USING INSTANTLOCK 2 TRUSSES

1. Start from a rigid frame scaffold set on a suitable base (not hanging). This starter scaffold is to be of adequate dimensions and properly anchored to an approved structure prior to installing the cantilevered scaffold. The starter scaffold is to be utilized as a tie-off location.

2. Remove the two (2) hitch pins from the horizontal hinge assembly on one (1) InstantLock 2 truss allowing the hinges to rotate freely.

   Work in groups of two (2) with Builder 1 on the working platform and Builder 2 on the platform below. Working together, stage the InstantLock 2 truss, so the truss swings horizontally with the wedges on top. The first truss will be installed level with the working platform, at the Builder 1 's feet.

3. Builder 1 (at the top of the truss) installs the top wedge by driving it into place, while Builder 2 checks the truss for level and plumb.

4. Once level, the bottom wedge of the truss can be driven into place by Builder 2. It is important that the truss is kept plumb using a level. A misaligned truss can rotate along the vertical axis, possibly creating an unsafe structure.

5. If necessary, the bottom truss is now installed below following steps 2 thru 5.

6. A vertical is installed at the open end of the truss while folded up against the starter scaffold.

7. The leveled truss is now fully secured to verticals on each end. Then, Builder 1 can rotate the truss 90 degrees, locking it into position using the supplied hitch pins.

8. Steps 2 thru 8 are now repeated for the second set of trusses.

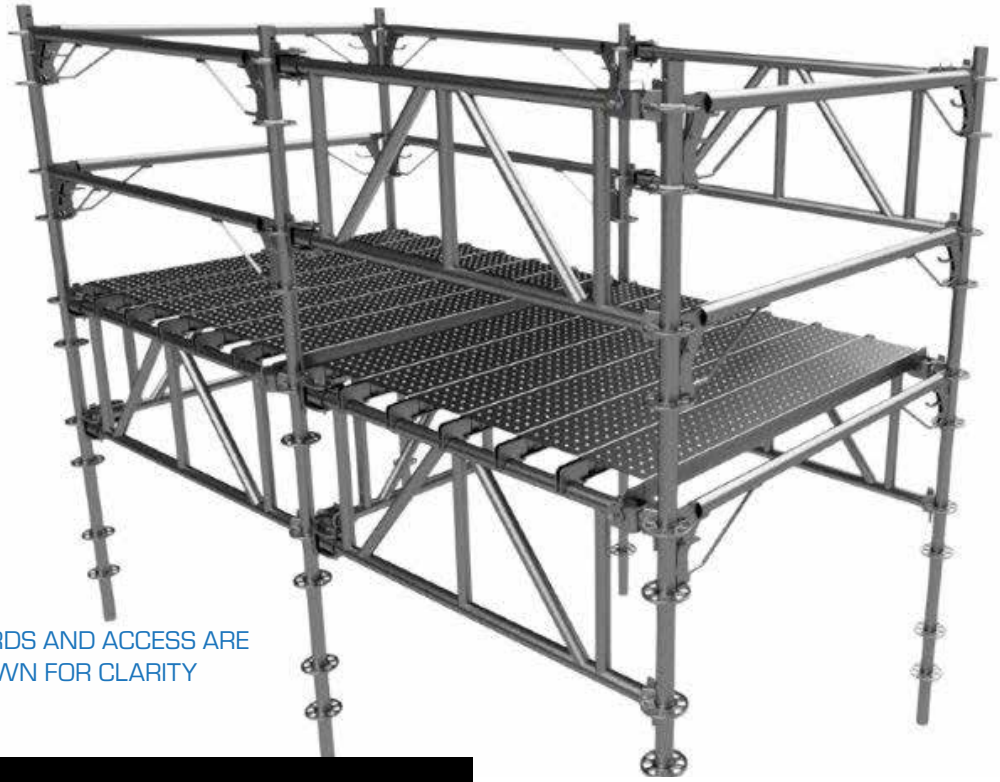
All material must be inspected prior to use! See inspection guidelines on page 87.

9. The planking is installed by sliding each plank out until fully decked. (The builder is tied off to the starter scaffold. Never tie off to the cantilever at this stage.)

10. Complete the cantilever by installing handrails followed by toe boards.

BUILD NOTES:

1. Swinging trusses can be used for a knee-out up to a maximum of 7-feet in length, so long as one of these requirements is implemented:
   - 45-degree tie back in tension or compression to an approved supporting leg is used.
   - Double-truss configuration is used.
2. If swinging trusses are used in a cantilever bridge scenario, the builder must remain tied to an approved adjacent structure until the cantilever components are static on both ends.
3. Knee-outs over seven (7) feet require an engineer's involvement.



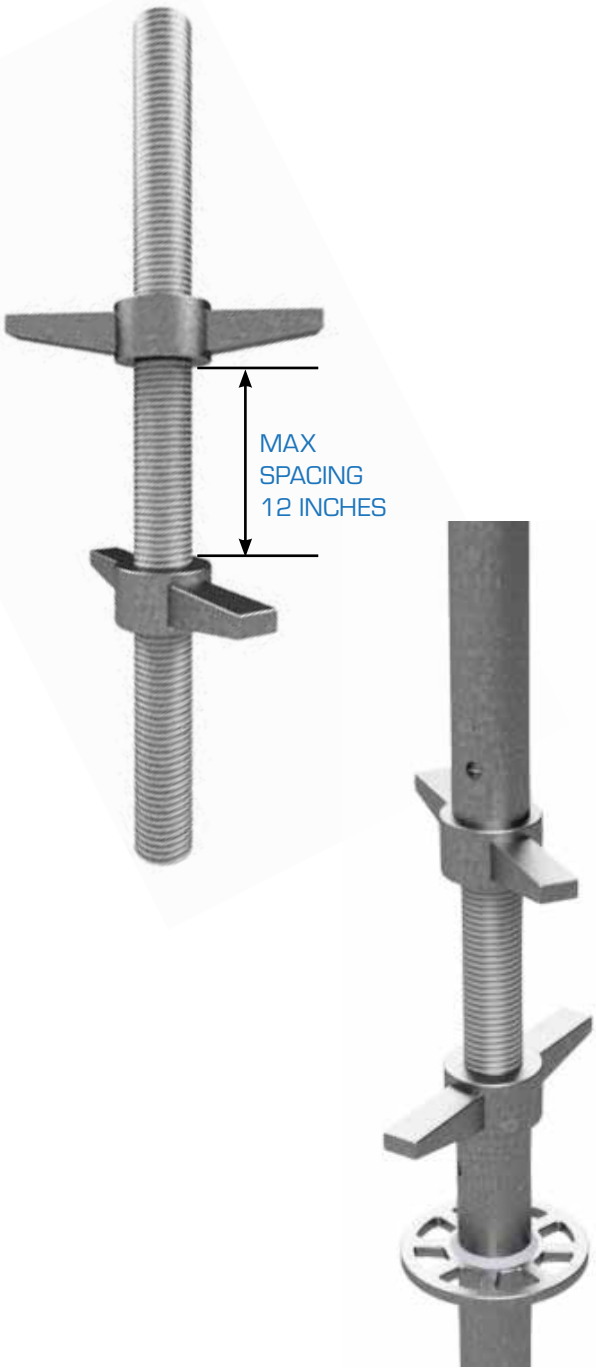
COMPLETED CANTILEVER

TOE BOARDS AND ACCESS ARE NOT SHOWN FOR CLARITY

WARNING: InstantLock 2 horizontals should not be used for cantilever applications. However, if the application is required, a qualified person must be contacted and the builder must have the proper training.

ADJUSTABLE TUBE AND CLAMP ADAPTER

PART #	DESCRIPTION	WEIGHT (LBS.)	MAXIMUM ALLOWABLE LOAD AT 12" (LBS.)
ATCA	Adjustable Tube and Clamp Adapter	3.5	5,000



The adjustable tube and clamp adapter allows the elevation of a board deck to be changed, so that the top portion of a scaffold can be aligned with a scaffold built on a separate structure.

The adjustable tube and clamp adapter enables the vertical rosettes of one scaffold to be aligned with another scaffold built at a different elevation.

The adjustable tube and clamp adapter may be placed on top of an existing InstantLock 2 scaffold or tube and clamp scaffold.

BUILD NOTES:

1. There must be a wrap of horizontals (either InstantLock 2 or tube and clamp) attached to the verticals above and below the adjustable tube and clamp adapter.
2. There must always be a minimum of six (6) inches of thread inside the upper and lower vertical.
3. Only one (1) adjustable tube and clamp adapter may be used in any run of verticals.
4. Before use, inspect the adjustable tube and clamp adapter assembly to ensure there are no cracks in the wing nuts and verify that the three (3) tack welds are visibly in place.
5. The maximum spacing between the nuts is 12 inches.

All material must be inspected prior to use! See inspection guidelines on page 87.

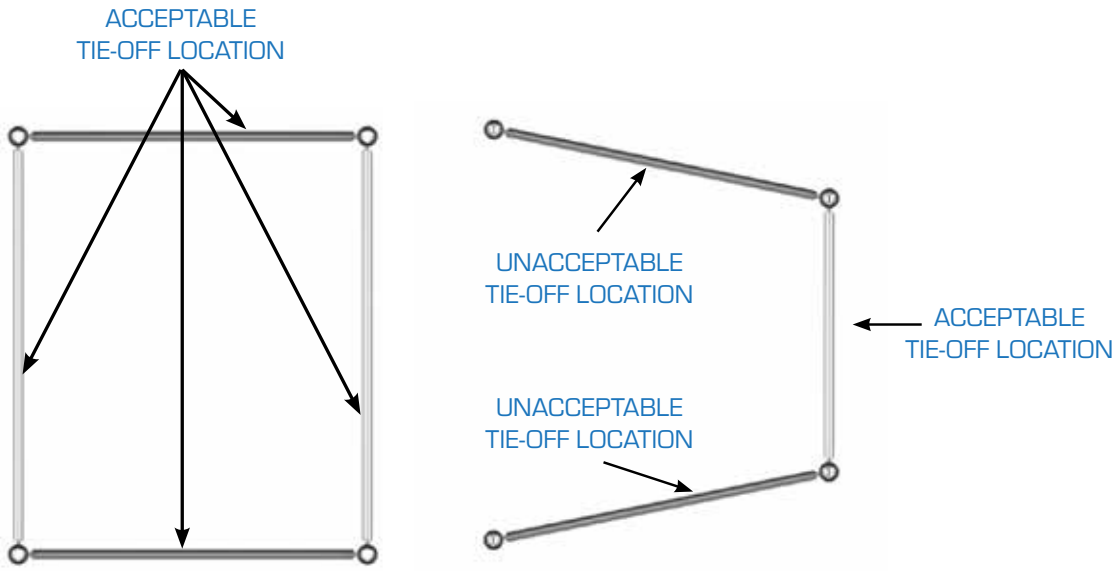
INSTANTLOCK 2 AS A FALL PROTECTION ANCHORAGE POINT

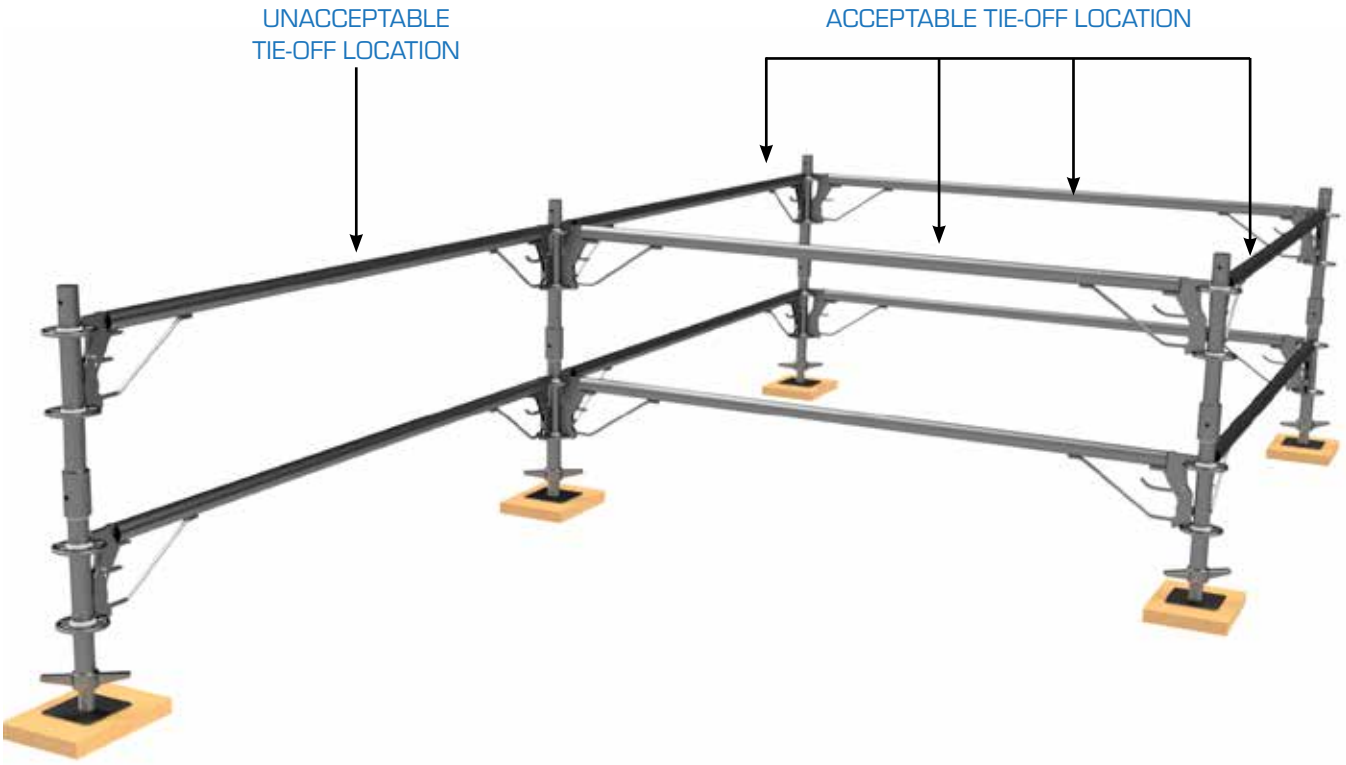
In order to provide the safest work environment for all personnel, NextGen recommends that the scaffold not be used as a fall protection anchorage point when other locations or methods of fall protection anchorage are available. In the event that there is nothing else suitable for a fall protection anchorage point, InstantLock 2 may be used, providing the following prerequisite guidelines are followed.

1. The anchorage point may be made on a vertical/rosette above the last horizontal connection with a minimum of two (2) horizontals and within 6 feet of those connections, and as shown on the sketch on pg. 64.
2. The anchorage point may be made to a horizontal bar provided that both end connectors are securely locked in place.
    a) InstantLock 2 trusses (page 18) can be used as an anchor point when all stabilizers are installed and both ends are secured.
    b) Check with truss manufacturer for allowable loading of pin/wedge driven trusses.
    c) Two- (2) through eight- (8) foot horizontals of any type may be used without modification for an anchorage point, as long as they are properly installed and in proper working condition.
    d) Nine- (9) and ten- (10) foot horizontals with any end connector may be used if modified to include a tube and clamp support that ties a minimum of two (2) horizontals together at the center.
3. Only one individual can tie off to any anchorage point anywhere on a single vertical or horizontal. No one may tie off to any of the other horizontals that are tied together as part of the anchorage point.
4. The anchorage point must be as high as possible above the employees' work area.
5. When a horizontal is used as a tie-off point, each vertical the horizontal is attached to must be secured by a minimum of one (1) other horizontal or equivalent.
6. The anchorage point must never be made to a vertical that does not extend to the ground or supporting structure. Never tie off to a gate, gate post or intermediate horizontal adapter.
7. All scaffolds that are built on any structure other than the ground shall be properly secured to the structure and be evaluated by a competent person prior to being used for a tie-off point.
8. All scaffold anchorage points must be evaluated by a competent person prior to being used.
9. If swinging trusses are used in a cantilever bridge scenario, the builder must remain tied to an approved adjacent structure until the cantilever components are static on both ends.
10. When the scaffold contains casters:
    a) The casters shall be locked.
    b) Outriggers, such as a properly designed tube and clamp outrigger that extends a minimum of 20 inches from the base of the scaffold, must be installed to prevent rolling and tipping of the scaffold.
    c) The scaffold should also, when possible, be tied to an existing stable structure to prevent sliding or tipping.
11. When possible, scaffolds that are used for a tie-off anchorage point shall be secured to a permanent structure, tied, guy-wired, or provided with outriggers. If a scaffold is to be free standing, the scaffold must meet the following conditions:
    a.) The scaffold is to have a minimum base of five- (5) feet long x five- (5) feet wide (excluding outriggers if used) and have a 3:1 height to base ratio.
    b.) The scaffold is to have vertical diagonal bracing installed on all four (4) sides of a single bay scaffold from the base to the underside of the deck.
    c.) When attaching to the vertical post of a free-standing scaffold, the point of connection shall have two (2) horizontal members attached at 90 degrees to each other, as close to the tie-off point as possible.

All material must be inspected prior to use! See inspection guidelines on page 87.

INSTANTLOCK 2 AS A FALL PROTECTION ANCHORAGE POINT (CONT'D)





All material must be inspected prior to use! See inspection guidelines on page 87.

d.) When attaching to a horizontal member, the conditions listed on Note 3 shall be adhered to at all times.

e.) Should a smaller base, free-standing scaffold be erected, the scaffold must be designed by an engineer prior to being erected.

f.) When available, the scaffold should be tied to an approved structure by either tube and clamp as close to the top deck as possible. This tie is to be made to the vertical members only and not attached to any horizontal members.

g.) This is in addition to tying required by Federal, State or local regulations.

h.) Anytime a free-standing scaffold is to be used for a tie-off anchorage point, it must be noted on the scaffold tag. NextGen may give different guidelines depending on the specific needs of the customer and the type of scaffold maintenance program and safe regulated work areas.

OSHA NOTE:

"Rescue considerations." As required by 1926.502(d)(20), when personal fall arrest systems are used, the employer must ensure employees can be promptly rescued or can rescue themselves should a fall occur. The availability of rescue personnel, ladders or other rescue equipment should be evaluated. In some situations, equipment which allows employees to rescue themselves after the fall has been arrested may be desirable, such as devices which have descent control built in.

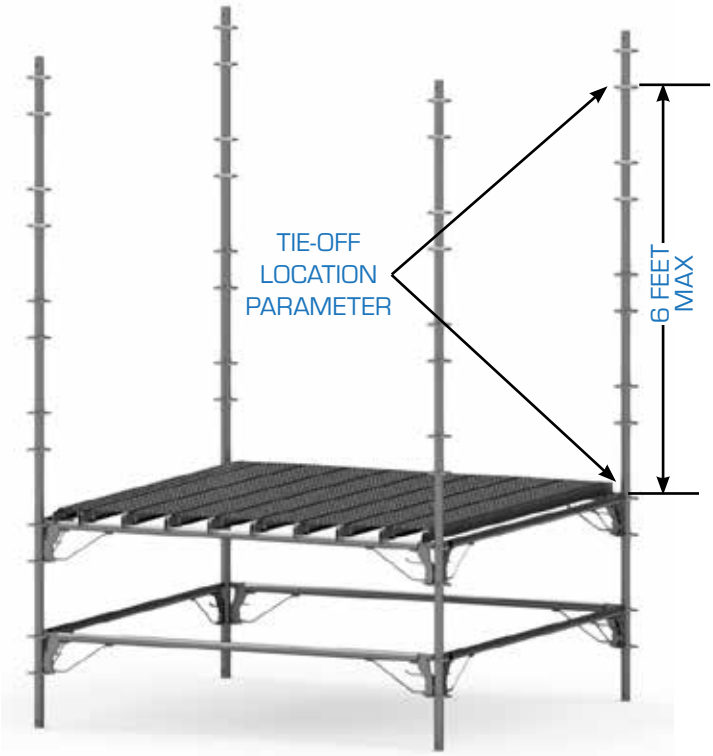
OSHA NOTE:

"Inspection considerations." As required by 1926.502(d)(21), personal fall arrest systems must be regularly inspected. Any component with any significant defect, such as cuts, tears, abrasions, mold, or undue stretching, alterations or additions which might affect its efficiency, damage due to deterioration, contact with fire, acid, or other corrosives, distorted hooks or faulty hook springs, tongues unfitted to the shoulder of buckles, loose or damaged mountings, non-functioning parts, or wearing of internal deterioration in the ropes must be withdrawn from service immediately, and shall be tagged or marked unusable and destroyed.

All material must be inspected prior to use! See inspection guidelines on page 87.

ENGINEERING NOTE:

Any material that is subjected to a load from a fall shall be replaced, even if there is no visible damage to the scaffold material. This includes verticals which may have been bent from the stresses from the fall. If it is not possible to immediately replace the material because of structural considerations, the material must be braced with tube and clamp or equivalent means and inspected by an engineer to ensure it is safe for continued use. In most cases, verification by a professional engineer (P.E.) may be required and is strongly recommended. The material must be replaced as soon as possible and the affected equipment tagged and removed from service.



VERTICAL JOINT HAS TO BE BELOW THE TOP WRAP IN ORDER TO BE USED AS AN ANCHORAGE POINT.

DAVIT ARM

PART NUMBER	DESCRIPTION	GALVANIZED WEIGHT (LBS.)
RLDAVIT	Davit Arm Tie-off Bracket	22.46

Third-party manufactured component. Data may vary.

The davit arm is used with a retractable lifeline, or lifeline, rope grab and standard lanyard.

Davit arm can also be used for lifting.

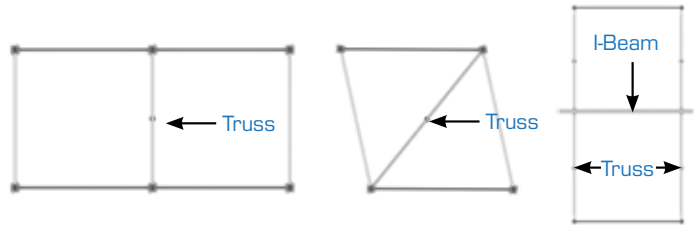
BUILD NOTES:

1. The davit arm is to have its top connection at the same elevation as the top full wrap of the scaffold.
2. A maximum of one (1) person can be tied off to the davit arm at one time.
3. Consult an engineer prior to using the davit arm for lifting. Additional tying and bracing may be required.
4. Only hand-operated systems shall be used (chainfall, come-along, rope and pulley).
5. No electric or mechanical lifting devices shall be used.

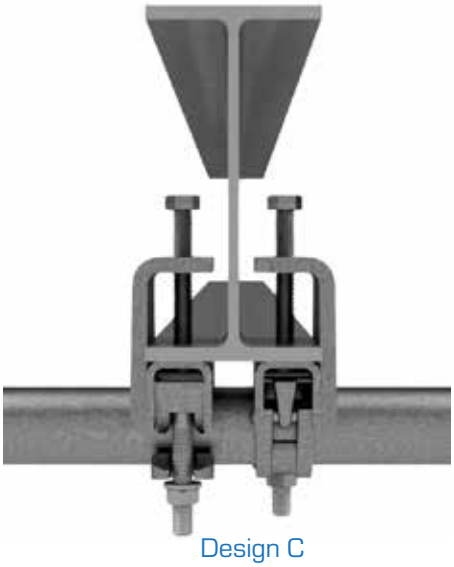
All material must be inspected prior to use! See inspection guidelines on page 87.

INSTANTLOCK 2 TRUSS USED AS A LIFTING RIG

PART NUMBER	DESCRIPTION	MAXIMUM ALLOWABLE LOAD (LBS.) DESIGN A AND B	DESIGN C
IL2TR4	4' Truss	3,000	6,000
IL2TR5	5' Truss	3,000	6,000
IL2TR6	6' Truss	2,750	5,500
IL2TR7	7' Truss	3,000	6,000
IL2TR8	8' Truss	3,500	7,000
IL2TR9	9' Truss	3,500	7,000
IL2TR10	10' Truss	3,500	7,000
IL2TR12	12' Truss	3,500	7,000
IL2TR14	14' Truss	3,000	6,000
IL2TR16	16' Truss	2,000	4,000
IL2TR18	18' Truss	2,000	4,000



A B C



Design C

All material must be inspected prior to use! See inspection guidelines on page 87.

For design A and B, the nylon strap must be placed to prevent sideways twisting of the truss.

Shown left is an acceptable method of securing a beam to the top of the truss when using design C. Other methods are possible as long as the beam is secured from sliding off the truss.

1. The I-beam must be a minimum of four (4) inches at the base.
2. The listed loads are for the load attached to the center of the I-beam.
3. The I-beam may be the limiting load carrying member.

BUILD NOTES:

1. All loads are calculated using InstantLock 2 verticals to support the trusses. When using different configurations, the item the truss is attached to may be the load-limiting component.
2. Trusses should not be used as lifting rigs when connected to side brackets, verticals supported by side brackets, intermediate horizontal adapters or verticals supported by intermediate horizontal adapters.

GUIDELINES FOR LIFTING RIGS

It is required to have a minimum of a four- (4) inch wide strap to prevent a small load area from bending the tube material on the truss. When a four- (4) inch strap is not available, the following can be used provided the new loading requirements are met:

1. The four- (4) inch wide value is defined for the maximum load applied to a truss.

2. Two 2-inch straps placed side by side can be used instead of a single four- (4) inch strap.
   - 2,000 lbs. for 16- and 18-foot truss
   - 2,750 lbs. for six- (6) foot truss
   - 3,000 lbs. for five- (5), seven- (7) and 14-foot truss
   - 3,500 lbs. for eight- (8) through 12-foot truss

3. A single two- (2) inch strap can be used if the load is reduced to:
   - 800 lbs. for 16- and 18-foot truss
   - 1,100 lbs. for six- (6) foot truss
   - 1,200 lbs. for five- (5), seven- (7) and 14-foot truss
   - 1,400 lbs. for eight- (8) through 12-foot truss

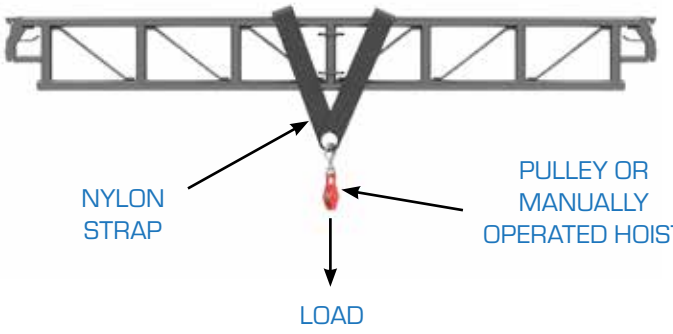
4. A three- (3) inch strap or two (2) 1.5-inch straps side by side can be used if the load is reduced to:
   - 1,000 lbs. for 16- and 18-foot truss
   - 1,375 lbs. for six- (6) foot truss
   - 1,500 lbs. for five- (5), seven- (7) and 14-foot truss
   - 1,750 lbs. for eight- (8) through 12-foot truss

BUILD NOTES:

1. All OSHA and plant safety regulations governing rigging and material handling must be followed.
2. All loose material must be removed or secured before lifting.
3. Spreader beams must be used, so that the lifting load on all vertical posts is applied in an upward direction.
4. The scaffold must be properly braced to prevent deformation during movement.
5. Scaffold weight loads must be calculated to prevent the overloading of any scaffold or lifting component.
6. All scaffold components (deck boards, etc.) must be secured to the scaffold.

Clamp bolts should have between 40 and 65 lbs. tension. Overtightening could damage the threads, bolt or item the clamp is attached to.

CAUTION: Wire cable cannot be used for strapping. A strap must be a minimum of four (4) inches wide.



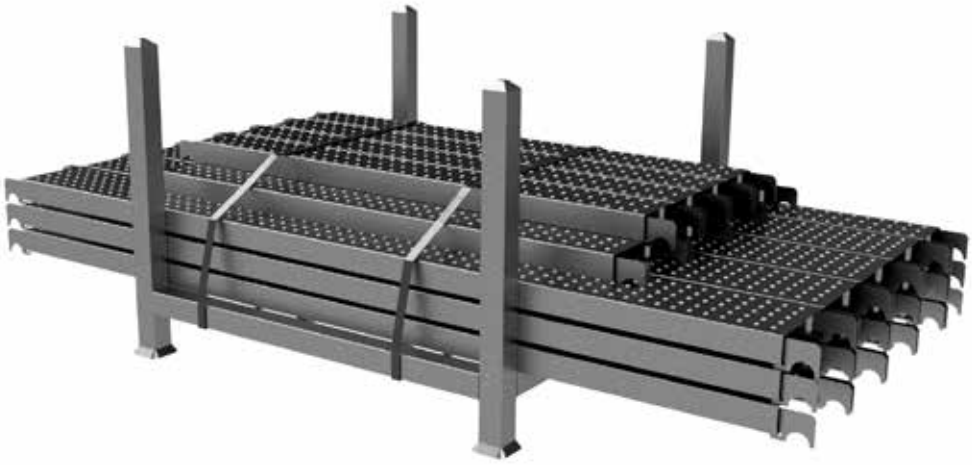
All material must be inspected prior to use! See inspection guidelines on page 87.

LIFTING AND MOVING RACKED MATERIAL

The following general guidelines are provided for lifting and rigging InstantLock 2 material. These are general guidelines. Users should follow all Federal, State and local rigging guidelines. (See: OSHA – 1926.251, Rigging equipment for material handling, OSHA – 1926.753, Hoisting and rigging, OSHA – 1926 Subpart N, Cranes, Derricks, Hoists, Elevators, and Conveyors, other OSHA and ASME standards as applicable.)

InstantLock 2 scaffold racks may be used to hold material while lifting, provided the following guidelines are followed:

1. All material must be evenly balanced in the rack.
2. All material must be secured from sliding. (Two (2) ratchet straps, two (2) wraps of banding, or other approved method of securing the material shall be used.)
3. All material must be secured to the rack. (This can be accomplished by the same strapping/banding required above.)
4. Standard rigging procedures should be used to prevent movement of the straps while lifting the load. (Use of a spreader bar when possible is preferred.)

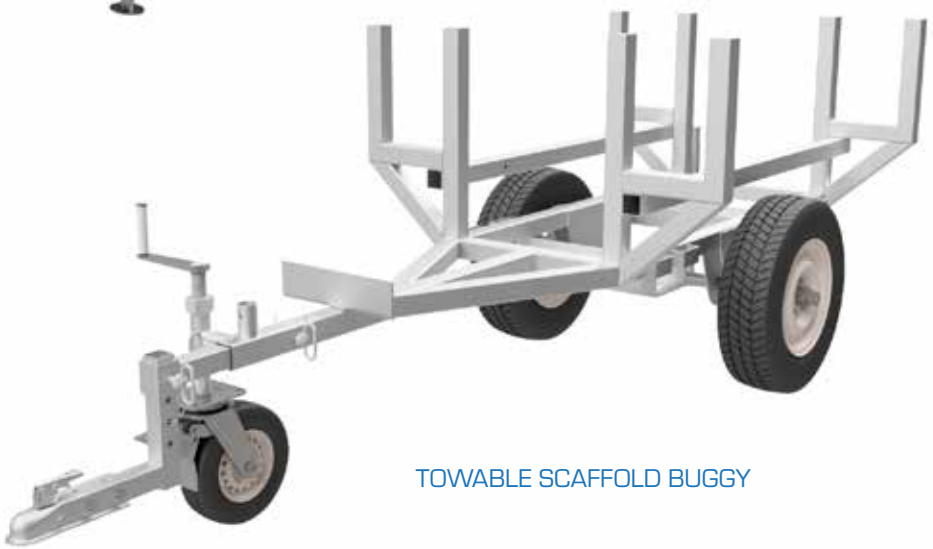


All material must be inspected prior to use! See inspection guidelines on page 87.

INSTANTLOCK 2 EQUIPMENT CARTS

PART #	DESCRIPTION	WIDTH (INCHES)	HEIGHT (INCHES)	LENGTH (INCHES)	LOAD CAPACITY (LBS.)	WEIGHT (LBS.)
S-Cart	Scaffold Cart	45.25	38.5	72	3,340	300
TS-Cart	Towable Scaffold Buggy	52	48	132	2,000	480

SCAFFOLD CART



TOWABLE SCAFFOLD BUGGY

BUILD NOTES:

1. Scaffold cart is only to be lifted by a forklift at pockets provided and all material strapped into place prior to lifting.
2. Only the towable scaffold buggy is meant to be towed by a motorized vehicle. Scaffold cart is to be pushed by man power.
3. Cart wheels are to be locked while loading and unloading to prevent movement.
4. The stabilizer at the back of the scaffold cart and buggy is to be used whenever the cart is stationary.

All material must be inspected prior to use! See inspection guidelines on page 87.

SCAFFOLD SKID PAN

PART #	BOTTOM LENGTH (FT.)	FULL LENGTH (FT.)	EMPTY WEIGHT (LBS.)	MAX. LOADED WEIGHT (LBS.)
SKID-8	6	8	900	3,000
SKID-10	8	10	1,050	3,000

Maximum allowable loads shown includes the weight of the skid pan plus the pan's contents.

Skid pans are used to move scaffold material from ground level closer to the location the material is required. This may be a higher elevation or across obstructions, such as fences, roads, streams, etc.

The following guidelines must be followed, regardless of the type of skid pan used:

1. All skid pans, cables, shackles and associated lifting equipment must be thoroughly inspected by the designated person when first delivered to the jobsite. The inspection must meet the requirements as defined in ASME B30.20-1-3.
   a) A visual inspection must be performed by a qualified person making records of the apparent external condition to provide the basis for a continuing evaluation.
   b) The inspection must be documented, dated and signed by the person performing the inspection.
2. For all equipment, inspect:
   a) Structurals for deformation, cracks or excessive wear.
   b) Loose or missing guards, fasteners, covers, stops or name plates.
   c) All functional operating mechanisms for mis-adjustments interfering with operation.
   d) Deformation—Any bending or twisting exceeding 10 degrees (or as recommended by the manufacturer) from the normal plane.
   e) Throat opening—Any distortion causing an increase in the throat opening exceeding 15% (or as recommended by the manufacturer).
   f) Wear—Any wear exceeding 10% (or as recommended by the manufacturer) of the original section dimensions.

All material must be inspected prior to use! See inspection guidelines on page 87.

3. Frequent visual examinations shall be performed weekly (or more frequently if recommended by the designated person) while the equipment is in service. No records required.
4. A documented thorough inspection shall be performed any time there is reason to believe part of the lifting equipment may have been damaged during use.
5. A skid pan shall not be used if it does not contain a label plate that lists the manufacturer, a serial number and the rated load.
6. When not in use, the skid pan and all lifting components shall be stored to protect the life of the equipment.

SCAFFOLD SQUARE STORAGE RACK

PART NUMBER	DESCRIPTION	WEIGHT (LBS.)	DIMENSIONS (INCHES) LENGTH X WIDTH X HEIGHT	MAX. CAPACITY (LBS.)
SSR	Square Steel Rack	134	44.25 x 44.25 x 32.25	5,000

Third-party manufactured component. Data may vary.

Square steel racks are designed to hold InstantLock 2 verticals, diagonals and other irregularly-shaped components.

When shipping, the square racks require two (2) pieces of banding to be placed around the base of the rack and the items being carried.

Square steel racks are designed so special casters can be placed on the bottom to allow the racks to be easily moved without a forklift. Always inspect rack feet for damage before installing casters or loading the rack.

STORAGE:

1. Square steel racks may be stacked for storage. The strength of the storage surface will determine how many racks can be stacked.
2. On grass, dirt or other unpacked surfaces, racks should be placed singly.
3. On prepared surfaces and asphalt, racks can be placed two (2) or three (3) high.
4. On three (3) or more inches of concrete, racks may be stacked three (3) or four (4) units high.

CAUTION: Always inspect the surface of the area where racks are stored for any cracking or sinking and inspect the racks for tilting or leaning.

WARNING: Racks should not be stacked more than four (4) units high.

BUILD NOTE:

Do not overload the casters when stacking a rack on top of a rack that contains casters.

All material must be inspected prior to use! See inspection guidelines on page 87.

SCAFFOLD METAL BOARD STORAGE RACK

PART NUMBER	DESCRIPTION	WEIGHT (LBS.)	DIMENSIONS (INCHES) LENGTH X WIDTH X HEIGHT	MAX. CAPACITY (LBS.)
SBR	Steel Board Rack	160	59.75 x 47 x 36	5,000

Steel board racks are designed to hold InstantLock 2 metal boards and other irregularly-shaped components.

Steel board racks will hold 62 metal boards four (4) feet or longer and 124 metal boards 32 inches or shorter. When shipping, the metal board racks require two (2) pieces of banding to be placed around the base of the rack and the items being carried.

Steel board racks are designed so special casters can be placed on the bottom to allow the racks to be easily moved without a forklift. Always inspect rack feet for damage before installing casters or loading the rack.

STORAGE:

1. Steel board racks may be stacked for storage. The strength of the storage surface will determine how many racks can be stacked.
2. On grass, dirt or other unpacked surfaces, racks should be placed singly.
3. On prepared surfaces and asphalt, racks can be placed two (2) or three (3) high.
4. On three (3) or more inches of concrete, racks may be stacked three (3) or four (4) units high.

CAUTION: Always inspect the surface of the area where racks are stored for any cracking or sinking and inspect the racks for tilting or leaning.

WARNING: Racks should not be stacked more than four (4) units high.

All material must be inspected prior to use! See inspection guidelines on page 87.

BUILD NOTE:

Do not overload the casters when stacking a rack on top of a rack that contains casters.

INSTANTLOCK 2 HORIZONTAL STORAGE RACK

PART NUMBER	DESCRIPTION	WEIGHT (LBS.)	DIMENSIONS (INCHES) WIDTH X HEIGHT	MAX. CAPACITY (LBS.)
IL2HR1	Horizontal Rack	79	44.5 x 38.5	3,000

Horizontal racks are designed for easy storage and inventory of InstantLock 2 horizontals. Each rack holds 96 horizontals and uses four (4) horizontals for support, for a total of 100 horizontals. To perform a quick inventory, simply count the full racks.

When shipping, the horizontal racks require one (1) piece of banding to be placed around the 96 center horizontals.

Horizontal racks are designed so casters can be placed on the bottom to allow the racks to be easily moved without a forklift.

STORAGE:

1. Steel board racks may be stacked for storage. The strength of the storage surface will determine how many racks can be stacked.
2. On grass, dirt or other unpacked surfaces, racks should be placed singly.
3. On prepared surfaces and asphalt, racks can be placed two (2) or three (3) high.
4. On three (3) or more inches of concrete, racks may be stacked three (3) or four (4) units high.

CAUTION: Always inspect the surface of the area where racks are stored for any cracking or sinking and inspect the racks for tilting or leaning.

WARNING: Racks should not be stacked more than four (4) units high.

All material must be inspected prior to use! See inspection guidelines on page 87.

INSTANTLOCK 2 HORIZONTAL STORAGE RACK SUPPORT FOOT

Caution should be used when assembling or disassembling horizontal racks. The racks are heavy and have rough edges that can cause injury.

Care must be taken to make sure a loose rack will not fall. It should be safely supported on the ground or held by another worker during assembly and disassembly.

Always ensure the bottom horizontal is securely latched before beginning disassembly. The opposite horizontal rack can fall when the bottom horizontal is released if the horizontal is not securely latched on the other rack. Therefore, always disassemble racks from the outside.

The rack can still fall over if the ground is not level. The rack must be checked for stability before letting it stand on its own. Care must be taken to only assemble or disassemble racks on level ground.

All material must be inspected prior to use! See inspection guidelines on page 87.

WARNING: Beware of sharp edges.

SCAFFOLD STORAGE BASKET

PART NUMBER	DESCRIPTION	WEIGHT (LBS.)	DIMENSIONS (INCHES) LENGTH X WIDTH X HEIGHT	MAX. CAPACITY (LBS.)
FWB	Folding Wire Basket	240	48 x 40 x 42	2,000

Folding wire baskets are designed to hold casters, ladder brackets, clamps and other small components only.

Items should never be stacked above the rim in wire baskets.

When shipping, wire baskets may require a plywood lid to prevent items from bouncing out.

STORAGE:

Wire baskets may be stacked for storage.

WARNING: Wire baskets should never be stacked more than two (2) units high.

All material must be inspected prior to use! See inspection guidelines on page 87.

OSHA COMPLIANCE OF INSTANTLOCK 2 SYSTEM SCAFFOLD

When InstantLock 2 System Scaffold material is assembled according to the loading and assembly requirements in the InstantLock 2 System Scaffold Standard Component Technical Manual the completed scaffold will meet OSHA regulations.

It is important to understand that OSHA does not regulate how scaffold material is manufactured. The manufacture of scaffold material is covered by ANSI and ASTM specifications. OSHA 1926.450-453 governs the construction of scaffolds using different types of scaffold material. The only restrictions that OSHA places on scaffold material are a 4:1 safety factor and loading values for decks, handrails and ladders.

This section is an explanation of how InstantLock 2 System Scaffold material meets the OSHA 1926.450-453 documents.

Ultimate Load
The load values listed in this technical manual reflect all InstantLock 2 scaffold components have been tested to a minimum safety factor of 4:1.

1.A.) OSHA Standard requires a 4:1 safety factor for scaffold material that does not contain suspension rope.

1926.451 (a)(1)
Except as provided in paragraphs (a)(2), (a)(3), (a)(4), (a)(5) and (g) of this section, each scaffold and scaffold component shall be capable of supporting, without failure, its own weight and at least four (4) times the maximum intended load applied or transmitted to it.
Section (a)(2) refers to counterweights, section (a)(3) and (a)(4), suspension rope, section (a)(5) scaffold hoist and (g) handrails.

InstantLock 2 scaffold material is tested to a better than 4:1 safety factor. ISO 9001-2000 test documentation is available upon request.

2.A.) The OSHA standard for handrails is 200 lbs.

1926.451(g)(1)(iv)
Each employee on a self-contained adjustable scaffold shall be protected by a guardrail system (with minimum 200 lbs. top-rail capacity) when the platform is supported by the frame structure, and by both a personal fall arrest system and a guardrail system (with minimum 200 lbs. top-rail capacity) when the platform is supported by ropes.

All InstantLock 2 scaffold handrails exceed this value.

3.A.) OSHA provides for three (3 deck-loading values 25-lbs./sq. ft., 50-lbs./sq. ft. and 75-lbs./sq. ft..

Index to Appendix A for Subpart L
1. (c) Fabricated planks and platforms may be used in lieu of solid-sawn wood planks. Maximum spans for such units shall be as recommended by the manufacturer based on the maximum intended load being calculated as follows:

RATED LOAD CAPACITY	INTENDED LOAD
Light-Duty	25 lbs. per square foot applied uniformly over the entire span area.
Medium-Duty	50 lbs. per square foot applied uniformly over the entire span area.
Heavy-Duty	75 lbs. per square foot applied uniformly over the entire span area.

All material must be inspected prior to use! See inspection guidelines on page 87.

NOTE: Platform units used to make scaffold platforms intended for light-duty use shall be capable of supporting at least 25 lbs. per square foot applied uniformly over the entire unit-span area, or a 250 lbs. point load placed on the unit at the center of the span, whichever load produces the greater shear force.

4.A) The required load on stairs and ladders as defined by OSHA is two (2) loads of 250 lbs.

1926.451(e)(1)

When scaffold platforms are more than 2 feet (0.6 m) above or below a point of access, portable ladders, hook-on ladders, attachable ladders, stair towers (scaffold stairways/towers), stairway-type ladders (such as ladder stands), ramps, walkways, integral prefabricated scaffold access, or direct access from another scaffold, structure, personnel hoist, or similar surface shall be used. Crossbraces shall not be used as a means of access.

All InstantLock 2 scaffold equipment can be used to construct scaffolds that are 100% compliant with OSHA regulations.

When InstantLock 2 material is assembled and maintained using the requirements in the InstantLock 2 System Scaffold Standard Component Technical Manual, the completed scaffold will meet the OSHA regulations.

The following sections from the OSHA 1926.450-453 documents must be followed by the end-user to ensure all scaffolds are correctly constructed and all scaffold components correctly installed and maintained.

1926.454
(b) The employer shall have each employee who is involved in erecting, disassembling, moving, operating, repairing, maintaining, or inspecting a scaffold trained by a competent person to recognize any hazards associated with the work in question. The training shall include the following topics, as applicable:

(b)(1) The nature of scaffold hazards;

(b)(2) The correct procedures for erecting, disassembling, moving, operating, repairing, inspecting, and maintaining the type of scaffold in question;

(b)(3) The design criteria, maximum intended load-carrying capacity and intended use of the scaffold;

(b)(4) Any other pertinent requirements of this subpart.

1926.451
(f)(3) Scaffolds and scaffold components shall be inspected for visible defects by a competent person before each work shift, and after any occurrence which could affect a scaffold's structural integrity.

(f)(4) Any part of a scaffold damaged or weakened such that its strength is less than that required by paragraph (a) of this section shall be immediately repaired or replaced, braced to meet those provisions, or removed from service until repaired.

1926.451
(d)(10) Ropes shall be inspected for defects by a competent person prior to each work-shift. and after every occurrence which could affect a rope's integrity. Ropes shall be replaced if any of the following conditions exist:

(d)(10)(i) Any physical damage which impairs the function and strength of the rope;

(d)(10)(ii) Kinks that might impair the tracking or wrapping of rope around the drum(s) or sheave(s);

(d)(10)(iii) Six (6) randomly distributed broken wires in one (1) rope lay or three (3) broken wires in one strand in one (1) rope lay;

(d)(10)(iv) Abrasion, corrosion, scrubbing, flattening or peening causing loss of more than one-third (⅓) of the original diameter of the outside wires;

All material must be inspected prior to use! See inspection guidelines on page 87.

(d)(10)(v) Heat damage caused by a torch or any damage caused by contact with electrical wires;

(d)(10)(vi) Evidence that the secondary brake has been activated during an over-speed condition and has engaged the suspension rope.

1926.451
(d)(12) When wire rope clips are used on suspension scaffolds: (d)(12)(i) There shall be a minimum of three (3) wire rope clips installed, with the clips a minimum of (six) 6 rope diameters apart;

(d)(12)(ii) Clips shall be installed according to the manufacturer's recommendations;

(d)(12)(iii) Clips shall be re-tightened to the manufacturer's recommendations after the initial loading;

(d)(12)(iv) Clips shall be inspected and re-tightened to the manufacturer's recommendations at the start of each work-shift. thereafter;

(d)(12)(v) U-bolt clips shall not be used at the point of suspension for any scaffold hoist;

(d)(12)(vi) When U-bolt clips are used, the U-bolt shall be placed over the dead end of the rope, and the saddle shall be placed over the live end of the rope.

All material must be inspected prior to use! See inspection guidelines on page 87.

INSTANTLOCK 2 BUILDING TIPS

The purpose of this section is to share valuable information on lessons learned and scaffold erection practices to make work activities safer, easier and more efficient for the end-user.

1. Always keep the most up-to-date copy of the InstantLock 2 System Scaffold Standard Component Technical Manual nearby. Visit the NextGen website, where it can be downloaded as needed. www.nextgenscaffold.com/resources

2. When constructing, modifying or removing InstantLock 2 scaffold material, it is very important that craft personnel handling the components in the field always wear the proper PPE (hard hat, gloves, safety glasses and safety shoes). Cut and impact resistant gloves are especially important to prevent accidental hand injuries that could be caused by the trigger mechanism on many InstantLock 2 components, which are a potential pinch point.

3. Two- (2) rosette verticals should never be used or pinned in the middle of other verticals. Two- (2) rosette verticals cannot have a vertical pin inserted in the top and bottom. The snap buttons will not lock on both pins and may create a drop hazard.

4. When building towers out of InstantLock 2 material, utilize the exact same building techniques you have always used with tube and clamp and other systems for bracing and board deck wrap requirements.

5. Take time during your initial jobsite walk down to gather the information and measurements required to make a detailed and accurate InstantLock 2 cut list for pulling material.

6. Do not try to memorize all of the different load ratings of InstantLock 2 work decks. Always refer back to the InstantLock 2 System Scaffold Standard Component Technical Manual to get the exact load ratings.

7. Do not attempt to build towers with InstantLock 2 scaffold material in a tight/restricted location where it has already been proven difficult using tube and clamp. It will be end up taking longer than tube and clamp.

8. Always start tower erection with adjustable screw jacks. You must assume the grade is not level. Always start at the highest point with a lowered jack.

9. Always do a visual inspection of the horizontal bars as the scaffold is being constructed to make sure the triggers are properly locked in place and that they are in the up position.

10. Light tapping of the horizontal bars on top of the end connector is allowed to get the trigger assembly properly locked into the rosettes/node points on the vertical leg.

11. Random field testing of InstantLock 2 scaffold components by unqualified personnel is not allowed. Any concerns, issues or questions with supplemental testing should always be referred to the manufacturing facility in Walker, LA to the attention of Lance Smith at (443) 293-6352.

12. Use a level to get the tower plumb/level at the very beginning of the build, on the very first base wrap, to prevent difficulty with bar placement all the way up.

13. Vertical rosette connections (node point, moment connections) are on 19.685-inch centers with a 7-inch spacing of each rosette connector's lower rosette the entire length of the vertical leg assembly.

14. Always have two (2) hands on components at any time, especially when setting a vertical leg on an existing vertical leg.

15. When setting a vertical leg on top of an existing leg, one hand shall support the upper leg, while the other hand depresses the spring clip. Then, slowly lower the top vertical leg down. Slightly twist the vertical until the spring clip locks into place. Do not drop the upper vertical leg onto the lower vertical pin.

16. To remove vertical legs that are connected, depress the spring clip, twist the upper vertical leg approximately 20 degrees, and with both hands lift to remove from lower vertical leg coupling pin.

All material must be inspected prior to use! See inspection guidelines on page 87.

INSTANTLOCK 2 BUILDING TIPS (CONT'D)

17. All InstantLock 2 horizontal bars are two (2) inches shorter than the actual size, allowing for center-to-center measurement between vertical leg assemblies.

18. Two- (2) through seven- (7) foot InstantLock 2 horizontal bars are all load-bearing ledgers. All other InstantLock 2 horizontal bars are NON-load-bearing runners only.

19. You can board-deck out to eight- (8), nine- (9) and 10-foot runners, as long as you install one (1) diagonal brace back to the leg within 18 inches from the center of the runner.

20. Always install telescoping diagonal bracing after the first horizontal wrap, but before the second board deck wrap is put into place.

21. When passing (i.e., manual chain line) any type of telescoping brace (adjustable handrail or diagonal brace) ensure components are secured together by clip prior to upward or downward movement. This applies to adjustable toe boards, as well.

22. Diagonal braces connect four- (4) rosette pairs vertically (6 feet-6 inches), installed so that a horizontal is located at both the top and bottom diagonal end.

23. Do not exceed a maximum of a four- (4) rosette pair (6 feet-6 inches) spacing between horizontal board deck wraps from the top of lower horizontal bar wrap to the top of the next horizontal bar wrap.

24. When installing mid-rail and top handrail, use the following spacing from the board deck: one (1) rosette pair for mid-rail and an additional rosette pair for handrail. This method does not require a tape measure.

25. Standard handrail corner posts are always comprised of a minimum of a four- (4) rosette vertical leg.

26. When adding a leg in the middle of a horizontal bearer using and intermediate horizontal adapter, or on top of a side bracket or cantilever that does not go all the way to the ground, do not exceed 25 lbs./sq. ft., For loads greater than 25 lbs./sq. ft. you must consult an engineer.

27. When using truss assembly lifting rigs, always ensure you use a nylon strap that is at least four (4) inches wide or greater.

28. To properly install safety gates,, always connect these InstantLock 2 components to the vertical leg that goes all the way to the ground for stability.

29. When installing vertical access ladders, always remember the ears on the ladder bracket point up and are installed on the ladder first, then attached to the vertical post. Additionally, always install the vertical ladder with the male end of the ladder pointed up and the female end pointed down.

30. The approved tie-off area for fall protection is above the top handrail, where two (2) horizontal bars connect to a vertical leg. Refer to this manual on how to use horizontal bars, which are approved for tie-off purposes.

31. When building hanging InstantLock 2 scaffold, ensure you install a safety clamp onto the vertical leg directly above the InstantLock 2 horizontal bar that will be holding the weight of the leg going down.

32. Always use handrails and step in the center of treads. Walk down the stair tower, do not run, do not skip any steps.

33. Clamp bolts should have between 40 and 65 lbs. tension. Overtightening could damage the threads, bolt or item the clamp is attached to.

34. Never use rigid beam clamps or swivel beam clamps to hang or support a scaffold with the bolts. These types of clamps should only be used for bracing a scaffold or with the flat portion supporting the load.

All material must be inspected prior to use! See inspection guidelines on page 87.

35. Be very careful not to overload trucks when shipping scaffold material. The maximum weight loaded should be capped at the maximum load the driver can legally carry. The user should validate the estimated weight by entering the quantity of scaffold components into a spreadsheet designed specifically to calculate and cross-check the total estimated weight. (A weight sheet can be made from our current List Price Sheet.)

36. When racking InstantLock 2 scaffold material, make sure to always use the proper racks and baskets. Do not make your own temporary racks out of miscellaneous scaffold parts that could come apart when loaded, unloaded or during transit, which could result in possible injury to personnel or property.

37. Casters are easy to overload when building a rolling scaffold. Scaffolds should be limited to two (2) work decks, 15 feet high when using eight- (8) inch casters and three (3) work decks, 21 feet high when using 12-inch casters.

38. Always inspect horizontal bars prior to installation to ensure the trigger, spring and cable are installed properly and functioning correctly. If you find an end connector with a broken trigger or cable, or weak spring, do not use that component. Pull it out of service and tag it for repair. Additionally, when installing ledgers or bearers, do not let go of the bar until you verify that it is properly locked into place and that the trigger is resting in the up position.

39. If you have questions regarding the contents of this manual; any ideas or suggestions on a new scaffold component design that would help make your job safer, quicker, easier; or any issues, concerns or problems regarding any InstantLock 2 scaffold components, please call Lance Smith, Engineering Design at (443) 293-6352.

All material must be inspected prior to use! See inspection guidelines on page 87.

CODE OF SAFE PRACTICES FOR INSTANTLOCK 2 SYSTEM SCAFFOLD

NextGen Scaffold recognizes that the scaffold industry is considered "inherently dangerous." It is the intent of this section of the technical manual to provide pertinent guidelines for the proper, safe use, and maintenance of scaffold components and structures.

These guidelines are generalities and do not intend to cover every specific situation or component, they do not purport to be all-inclusive nor supplant other regulatory and precautionary measures for the safe use of scaffold in usual or unusual conditions. The primary codes or regulations are those promulgated by OSHA. They are Federal laws intended to provide a safe workplace by providing minimum reference guidelines upon which related activities should be carried out. It shall be the responsibility of all users/builders to avail himself and to comply with all applicable codes, regulations, standard and common sense practices designed to purport safety in the erection, use and dismantling of scaffold.

General Guidelines Prior to Use of Scaffolding:

1. Jobsite conditions within the boundaries of a refinery, chemical plant, manufacturing plant, pulp and paper mill, power plant or construction site may vary, and each presents unique circumstances. Efficient and proper planning of each job must be done by a competent, qualified person: OSHA 1926.451 (a) (3) No scaffold shall be erected, moved, dismantled or altered except under the supervision of competent persons.

2. The jobsite should be inspected and supervision be familiarized with proper access, proximity of power or process lines, obstructions, ground conditions, openings or pits, strength of supporting structure(s), interference with other workers, overhead protection, wind/weather protection and environmental hazards. These conditions must be evaluated and adequately provided for. Also, consider the protection of people who will be passing or working beneath or around scaffold structures.

3. The work to be done and the number of persons involved must be determined to properly calculate the loading. The total loads and the supporting ground or structure must be considered when designing a scaffold structure—leg spacing, adequate sills, horizontal bracing, etc.

4. Stationary scaffolds over 125 feet in height and rolling towers over 60 feet in height must be designed by a professional engineer.

5. All equipment must be inspected to ensure it is in good condition. Damaged or deteriorated equipment should not be used and must be removed from service.

6. Scaffolds must be designed and used in accordance with the manufacturer's specifications and recommendations. Do not intermix different brands of scaffold, unless authorized by the manufacturer, or plan to use materials in any manner other than what the manufacturer intended their design to accommodate.

7. When planning the job, remember to use common sense, sound judgment and qualified reasoning for the following:
   a.) Provide adequate foundations.
   b.) Provide proper access.
   c.) Provide proper bracing.
   d.) Provide proper handrails and toe boards.
   e.) Provide adequate decking materials.
   f.) Design scaffold structure on components to adequately compensate for all intended loads. Use only qualified personnel who are in good shape—emotionally and physically.

8. Read, understand and comply with all Federal (OSHA), State, and local codes and regulations pertaining to scaffold erection and removal.

9. When covering scaffold with plastic, tarps or other types of solid material the user must consider all wind and/or snow loading. NextGen recommends that all users consult with an engineer to ensure the proper bracing for the maximum expected wind or snow loads and/or snow loading.

All material must be inspected prior to use! See inspection guidelines on page 87.

GIVE TO SCAFFOLD BUILDER AND USER OR POST ON JOB

CODE OF SAFE PRACTICES FOR
FRAME SCAFFOLDS, SYSTEM SCAFFOLDS, TUBE AND CLAMP SCAFFOLDS AND ROLLING SCAFFOLDS

DEVELOPED FOR INDUSTRY BY SCAFFOLD INDUSTRY ASSOCIATION, INC.

It shall be the responsibility of all users to read and comply with the following common sense guidelines which are designed to promote safety in the erecting, dismantling and use of scaffolds. These guidelines do not purport to be all-inclusive, nor supplant or replace other additional safety and precautionary measures to cover usual or unusual conditions. If these guidelines in any way conflict with any Federal, State, local or other government statute or regulation, said statute or regulation shall supersede these guidelines and it shall be the responsibility of each user to comply therewith.

General Guidelines

Post these scaffolding safety guidelines in a conspicuous place and be sure that all persons who erect, dismantle or use scaffolding are aware of them.

1. Follow all Federal, State, and local codes, ordinances and regulations pertaining to scaffolding.
2. Survey the jobsite. A survey shall be made of the jobsite for hazards, such as untamped earth fills, ditches, debris, high-tension wires, unguarded openings and other hazardous conditions created by other trades. These conditions should be corrected or avoided as noted in the following sections.
3. Inspect all equipment before using. Never use any equipment that is damaged or defective in any way. Remove it from the jobsite.
4. Scaffolds must be erected in accordance with design and/or manufacturer's recommendations.
5. Do not erect, dismantle or alter a scaffold unless under the supervision of a qualified person.
6. Do not abuse or misuse the scaffold equipment.
7. Erected scaffolds should be continually inspected by users to be sure that they are maintained in safe condition. Report any unsafe condition to your supervisor.
8. Never take chances! If in doubt regarding the safety or use of the scaffold, consult your scaffold supplier.
9. Never use equipment for purposes or in ways for which it was not intended.
10. Do not work on scaffolds if your physical condition is such that you feel dizzy or unsteady in any way.

Guidelines for Erection and Use of Scaffolds

1. Scaffold bases must be set on adequate sills or pads to prevent slipping or sinking, and fixed where required. Any part of a building or structure used to support the scaffold, shall be capable of supporting the maximum intended load to be applied.
2. Use adjusting screws or other approved methods, instead of blocking to adjust to uneven grade conditions.
3. Bracing, leveling and plumbing of frame scaffolds:

    a.) Plumb and level all scaffolds as the erection proceeds. Do not force frames or braces to fit—level the scaffold until proper fit can easily be made.

    b.) Each frame or panel shall be braced by horizontal bracing, cross bracing, diagonal bracing or any combination thereof for securing verticals together laterally. All brace connections shall be made secure, in accordance with the manufacturer's recommendations.

All material must be inspected prior to use! See inspection guidelines on page 87.

4. Bracing, leveling and plumbing of tube and clamp, and system scaffolds:

   a.) Posts shall be erected plumb in all directions, with the first level of runners and bearers positioned as close to the base as feasible. The distance between bearers and runners shall not exceed manufacturer's recommended procedures.

   b.) Plumb, level and tie all scaffolds as erection proceeds.

   c.) Fasten all couplers and/or connections securely before assembly of next level.

   d.) Vertical and/or horizontal diagonal bracing must be installed according to manufacturer's recommendations.

5. Tie continuous (running) scaffolds to the wall or structure at each end and at least every 30 feet of length when scaffold height exceeds the maximum allowable free-standing dimension. Begin ties or stabilizers when the scaffold height exceeds that dimension, and repeat at vertical intervals not greater than 26 feet. The top anchor shall be placed no lower than four (4) times the base dimension from the top of the completed scaffold. Anchors must prevent scaffold from tipping into or away from wall or structure. Stabilize circular or irregular scaffolds in such a manner that the completed scaffold is secure and restrained from tipping. When scaffolds are partially- or fully-enclosed or subjected to overturning loads, specific precautions shall be taken to ensure the frequency and accuracy of ties to the wall and structure. Due to increased loads resulting from wind or overturning loads, the scaffolding component to which ties are subjected shall be checked for additional loads.

6. When free-standing scaffold towers exceed four (4) times their minimum base dimension vertically, they must be restrained from tipping. (CAL/OSHA and some government agencies require stricter ratio of 3:1.)

7. Do not erect scaffolds near electrical power lines unless proper precautions are taken. Consult the power service company for advice.

All material must be inspected prior to use! See inspection guidelines on page 87.

8. A means of access to all platforms shall be provided.

9. Do not use ladders or makeshift. devices on top of scaffolds to increase the height.

10. Provide handrails and mid-rails at each working platform level where open sides and ends exist, and toe boards where required by code.

11. Brackets and cantilevered platforms:

    a.) Brackets for system scaffolds shall be installed and used in accordance with manufacturers' recommendations.

    b.) Brackets for frame scaffolds shall be seated correctly, with side bracket parallel to the frames and end brackets at 90 degrees to the frames. Brackets shall not be bent or twisted from normal position. Brackets (except mobile brackets designed to carry materials) are to be used as work platforms only and shall not be used for storage of material or equipment.

    c.) Cantilevered platforms shall be designed, installed and used in accordance with manufacturers' recommendations.

12. All scaffolding components shall be installed and used in accordance with the manufacturers' recommended procedure. Components shall not be altered in the field. Scaffold frames and their components manufactured by different companies shall not be intermixed, unless the component parts readily fit together and the resulting scaffold's structural integrity is maintained by the user.

13. Planking:
    a.) Working platforms shall cover scaffold bearer as completely as possible. Only scaffold grade wood planking or fabricated planking and decking meeting scaffold use requirements shall be used.
    b.) Check each plank prior to use to be sure plank is not warped, damaged, or otherwise unsafe.

    c.) Planking shall have at least a 12-inch overlap and extend six (6) inches beyond center of support, or be cleated or restrained at both ends to prevent sliding off supports.

d.) Solid-sawn lumber, LVL (laminated veneer lumber) or fabricated scaffold planks and platforms (unless cleated or restrained) shall extend over their end supports not less than six (6) inches nor more than 18 inches. This overhang should not be used as a work platform.

14. For putlogs and trusses the following additional guidelines apply:

a.) Do not cantilever or extend putlogs/trusses as side brackets without thorough consideration for loads to be applied.

b.) Putlogs/trusses should be extended at least six (6) inches beyond point of support.

c.) Place recommended bracing between putlogs/trusses when the span of putlog/truss is more than 12 feet.

15. For rolling scaffolds, the following additional guidelines apply:

a.) Riding a rolling scaffold is very hazardous. The Scaffold Industry Association does not recommend, nor encourage this practice. However, if you choose to do so, be sure to follow all State, Federal or other governmental guidelines.

b.) Casters with plain stems shall be attached to the panel or adjustment screw by pins or other suitable means.

c.) No more than 12 inches of the screw jack shall extend between the bottom of the adjusting nut and the top of the caster.

d.) Wheels or casters shall be provided with a locking means to prevent caster rotation and scaffold movement and kept locked.

e.) Joints shall be restrained from separation.

f.) Use horizontal diagonal bracing near the bottom and at 20-foot intervals measured from the rolling surface.

g.) Do not use brackets or other platform extensions without compensating for the overturning effect.

h.) The platform height of a rolling scaffold must not exceed four (4) times the smallest base. Government agencies require a stricter ratio of 3:1).

i.) Cleat or secure all planks.

j.) Secure or remove all materials and equipment from platform before moving.

k.) Do not attempt to move a rolling scaffold without sufficient help. Watch out for holes in floor and overhead obstructions. Stabilize against tipping.

16. Safe use of scaffold:

a.) Prior to use, inspect scaffold to ensure it has not been altered and is in safe working condition.

b.) Erected scaffolds and platforms should be inspected continuously by those using them.

c.) Exercise caution when entering or leaving a work platform.

d.) Do not overload scaffold. Follow manufacturer's safe working load recommendations.

e.) Do not jump onto planks or platforms.

f.) Do not use ladders or makeshift. devices on top of working platforms to increase the height or provide access from above.

g.) Climb in access areas only and USE BOTH HANDS.

All material must be inspected prior to use! See inspection guidelines on page 87.

When Dismantling Scaffolding the Following Additional Guidelines Apply:

1. Check to ensure scaffolding has not been structurally altered in a way which would make it unsafe, and if it has, reconstruct where necessary before commencing with dismantling procedures. This includes all scaffold ties.
2. Visually inspect planks prior to dismantling to be sure they are safe.
3. Consideration must be given as to the effect removal of a component will have on the rest of the scaffold prior to that component's removal.
4. Do not accumulate excess components or equipment on the level being dismantled.
5. Do not remove ties until scaffold above has been removed (dismantled).
6. Lower dismantled components in an orderly manner. Do not throw off of scaffold.
7. Dismantled equipment should be stockpiled in an orderly manner.
8. Follow erection procedures and user manuals.

These safety guidelines (Codes of Safe Practice) set forth common sense procedures for safely erecting, dismantling and using scaffolding equipment. However, equipment and scaffolding systems differ, and accordingly, reference must always be made to the instructions and procedures of the supplier and/or manufacturer of the equipment.

Since field conditions vary and are beyond the control of the Scaffold Industry Association, safe and proper use of scaffolding is the sole responsibility of the user.

All material must be inspected prior to use! See inspection guidelines on page 87.

SCAFFOLD INSPECTION GUIDELINES

During manufacture, InstantLock 2 System Scaffold material goes through a very intensive inspection program. Each part is handled and inspected two (2) times. Items are then randomly selected for non-destructive testing and a final inspection is performed. Further visual inspection is performed as the material is loaded for shipment to any jobsite.

Even with this intensive inspection system, it is still the responsibility of the end-user to ensure each piece of scaffold material installed is free of defects.

Scaffolds are usually built by one craft group and then work is performed on and around the scaffold by many different craft groups. During normal use, it is possible that scaffold components will become damaged. The following are general guidelines to aid the end-user in identifying potential problems with InstantLock 2 System Scaffold material. This list is by no means all-inclusive, and is provided only as a general guide.

All components must be checked every time they are used, prior to installation or removal, for any visible damage, missing or broken welds, deformed or dented parts that may affect the strength of the item, saw marks, welding burn marks, excessive rust or chemical damage.

WARNING: Material must be removed from service any time rust or chemical damage has affected the strength or fit of the material. This is especially critical with the trigger and spring assembly.

End-users should immediately contact their site representative regarding any abnormal issues or concerns.

1. **For all items with end connectors**, the end connector must be undamaged and the trigger unbroken. Look for missing bolts or nuts that hold in the trigger or spring. Examine the trigger mechanism and ensure the trigger and spring are functioning correctly. Check to ensure the trigger/spring is free of gunnite and other products which could affect the smooth operation of the trigger/spring. Ensure the fit of the end connector to the vertical post is not excessively loose due to damage to the end connector.

2. **Adjustable bearers** must be free of any visible damage, missing or broken welds on the end connectors or bent or deformed tubing. The tubing must also be free of any saw marks, welding burn marks, large dents or other damage which may affect the strength of the. The locking bolt must be installed and working correctly to prevent movement.

3. **Adjustable braces** must be free of any visible damage, bent or deformed tubing, missing or broken welds on the end connectors or clamp assemblies. The tubing must also be free of any saw marks, welding burn marks, large dents or other damage which may affect the strength of the. The clamp rivet must be examined for wear or bending and the bolt threads must be free of defects. Locking pins must be installed and functional.

4. **Beam clamps—rigid and swivel**—must be free of any visible damage, saw marks, welding burn marks, large dents, cracks, damaged bolt threads, loose or damaged rivets or other damage. The clamp must be examined for wear, cracking or bending and the bolt threads must be free of defects. Special attention must be given to the radius area of the clamp to ensure there are no cracks in the bend area.

5. **Boiler equipment** must be free of any visible damage, missing or broken welds. The tubing and beams must be free of any saw marks, welding burn marks, large dents or other damage. Special attention must be placed on the shoring beams and ladders to ensure they are undamaged.

6. **Casters** must be free of any visible damage. The caster must be round, the pin assembly must be straight, and all bolts and nuts must be present.

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7. **Diagonal pin braces** must be free of any visible damage, bent or deformed tubing, missing or broken welds on the clamp assemblies. The tubing must also be free of any saw marks, welding burn marks, large dents or other damage which may affect the strength of the. The clamp rivet must be examined for wear or bending and the bolt threads must be free of defects.

8. **Horizontals** must be free of any visible damage, missing or broken welds on the end connectors or bent or deformed tubing. The tubing must also be free of any saw marks, welding burn marks, large dents or other damage which may affect the strength of the.

9. **Intermediate horizontal adapters** must be free of any visible damage, missing or broken welds on the rosettes, bent or deformed rosettes, bent or deformed top plate, missing or bent top pin. The part must also be free from any saw marks, welding burn marks, or other damage which may affect the strength of the.

10. **Ladders** must be free of any visible damage, missing or broken welds on the rungs, bent or deformed tubing or rungs. The side rails and rungs must also be free of any saw marks, welding burn marks, large dents or other damage which may affect the strength of the s.

11. **Ladder brackets** must be free of any visible damage. The clamp rivet must be examined for wear or bending and the clamp bolt threads must be free of defects.

12. **Metal boards** must be free of any visible damage, creases in the board surface, bending of the support runners, excessive rust or chemical damage, missing or broken welds on the cleats. Board strength is directly affected by the cleats and the side rails. Ensure the cleats are undamaged and all welds are intact, and ensure the side rails are straight and undamaged.

All material must be inspected prior to use! See inspection guidelines on page 87.

13. **Safety gates** must be free of any visible damage, missing or broken welds. The tubing must be free of any saw marks, welding burn marks, large dents or other damage. The clamp rivet must be examined for wear or bending and the clamp bolt threads must be free of defects.

14. **Screw jacks and swivel jacks** must be checked for proper operation and for damaged threads or nuts. They must be free of any visible damage, bent or deformed tubing, missing or broken welds on the clamp assemblies. The tubing must also be free of any saw marks, welding burn marks, large dents or other damage which may affect the strength of the.

15. **Side brackets** must be free of any visible damage, missing or broken welds on the end connectors or rosettes, bent or deformed tubing. The tubing must also be free of any saw marks, welding burn marks, large dents or other damage which may affect the strength of the. Special attention must be placed on inspecting the end connector where it fits into the rosette and the trigger to ensure the bracket fits snugly onto the vertical rosettes, and that there is no visible damage or bending.

16. **Stair system parts** must be free of any visible damage, missing or broken welds, and all rivets are tight. Stair stringers, bolts and clips must be straight and undamaged. The treads must be able to be properly seated, so when attached each stringer is positioned over the top of one another.

17. **Toe boards** must be free of any visible damage, saw marks, welding burn marks, large dents or other damage. The toe board tips and locking slide need to be in good working order. The snap buttons must be installed and working correctly

18. **Tube and clamp** material has been manufactured by many different vendors. When the vendor can be determined, always use their guidelines for inspection and maintenance. The tubing must be free of any visible damage, saw marks, welding burn marks, large dents or other damage. The tube ends must be securely attached to the tubing and must be undamaged. The clamp rivet must be examined for wear or bending and the bolt threads must be free of defects.

19. **Trusses** must be free of any visible damage, missing or broken welds on the end connectors or bent or deformed tubing. The tubing must also be free of any saw marks, welding burn marks, large dents or other damage which may affect the strength of the.

20. **Verticals** must be free of any visible damage, missing or broken welds on the rosettes, bent or deformed rosettes, or bent/deformed tubing. The tubing must also be free of any saw marks, welding burn marks, large dents or other damage which may affect the strength of the.

All material must be inspected prior to use! See inspection guidelines on page 87.

SCAFFOLD MATERIAL LOADING AND SHIPPING GUIDELINES

These are NextGen's company goals regarding the shipment and receipt of InstantLock 2 scaffold material. Clients are requested to comply with these common sense requirements when they are preparing scaffold shipments for return to NextGen.

1. Upon completion of the project, NextGen requires all scaffold material be properly segregated and racked by individual component. Prior to being released for transport, customers must have completed the following actions to correctly prepare the scaffold material for shipment back to NextGen:
   a.) Material must be properly segregated into racks or baskets by size and component.
   b.) Material must be banded to the rack to ensure it will not shift. or break loose while in transit.
   c.) When loading requires any other racks, baskets or bundled material that are not the same length to be stacked, cribbing must be used between the racks, baskets or material to ensure it is level and will not shift. during transport or unloading.
   d.) Never load racks of steel planks or toe boards on the back of the truck, as they can come out easily.
   d.) Material must be properly counted and a shipping ticket completed for each truckload.
   e.) Advanced copies of shipping tickets must be sent to NextGen.
   f.) Shipments must be coordinated in advance with our NextGen warehouse.
   g.) Do not schedule material for shipment until all items have been completed.

2. Have proper client authorization request and release paperwork listing material.
   a.) Computer load calculations are completed for total weight verification prior to loading material.
   b.) Complete initial pre-loading diagrams to ensure how and where material will be placed on truck.
   c.) Complete all shipment, tractor, trailer and driver inspection paperwork.
   d.) You should always have material pulled and staged prior to truck arrival.
   e.) For safety reasons, always use a two-man team when loading scaffold material shipments.

All material must be inspected prior to use! See inspection guidelines on page 87.

3. Material loading:
   a.) Do not load trucks early in the morning or late at night and in instances where there is not enough light to properly and safely see.
   b.) Do not let the tractor operator/driver get in the way while you are loading scaffold material.
   c.) Require driver to wear hard hat when forklifts are operating during loading and unloading.

4. Prior to loading/releasing incoming or outgoing shipments:
   a.) Take pictures of all incoming and outgoing shipments.
   b.) Use a dry erase board or other means to show date, time, ticket number, etc.
   c.) Ensure both the truck and trailer have current registration tags before loading.
   d.) Ensure the truck driver has a valid driver's license before loading.
   e.) Trailer and tractor should have good tires (not bald) on all axles before loading.
   f.) Ensure the truck driver has all of the required insurance paperwork before loading.
   g.) Driver should be observed for any obvious FFD impairment problems.
   h.) If all conditions cannot be properly met, do not load the truck.
   i.) Once material is loaded onto the trailer, make sure it is properly secured by the driver.
   j.) Ensure the correct scaffold material components and sizes are actually on the trailer.
   k.) Ensure the driver has been given copies of all shipping paperwork before he is released.
   l.) Ensure the driver fully understands where he is going and when he is expected to arrive.
   m.) When required, instruct the driver to weigh his truck at the nearest scales to determine if he is overloaded.

5. When loading requires horizontal racks that are not the same length to be stacked (see picture), the following additional guidelines MUST be met:
   a.) The rack with the longest horizontals must be placed on the truck first.
   b.) The rack with the shortest horizontals must be placed on top, so that one set of rack feet sit on top of the lower rack's post.
   c.) Cribbing must be placed on top of the horizontals, under the other set of rack feet.
   d.) The cribbing must be secured from movement by using cleats, banding or other means.

e.) The two racks must be banded together to prevent the top rack from dislodging.
f.) If all of the above conditions cannot be properly met, do not load or ship the material.

6. Have an independent (two (2) different people) double-check to verify the following:
   a.) Ensure the truck is not overweight.
   b.) Maximum material loaded height above the ground must not exceed 13.5 feet.
   c.) Material loaded must not extend beyond the width of trailer. Notify the receiving organization that the material has departed and is in transit.
   a.) Ensure the load will arrive at the designated location during normal working hours/days.
   b.) Fax a copy of exactly what material is being shipped to NextGen.
   c.) Verify the location is aware that the shipment is en route and that someone will be there to receive and unload it.

7. Charges for return of NextGen material not properly sorted and racked.

   The goal is for all NextGen material to be returned in the same manner in which it was shipped. Properly prepared InstantLock 2 shipments make it easier, safer, quicker and more accurate for all involved parties in the physical inventory and return process. If for any reason the InstantLock 2 material is not returned as requested, NextGen will take the following corrective actions:

   a.) Breaking down of any racks or baskets of material that were improperly loaded.
   b.) Properly re-racking as required by our quality assurance program.
   c.) Tracking all of the additional man-hours/handling charges associated with re-racking material in order to store the components long term, awaiting future client orders and shipment.
   d.) NextGen will invoice the customer for the additional charges incurred with correcting the shipment.
   e.) NextGen will also invoice the customer for any fees and/or penalties related to improperly loaded or overloaded return shipments assessed to and paid by NextGen.

8. InstantLock 2 material quantity disputes and final inventory reconciliation.
   a.) Material shipped from NextGen warehouse facilities undergoes stringent quantity verification in accordance with NextGen's ISO 9001 program. All outgoing and incoming transactions are subject to two independent verification counts. If needed, a third independent count is performed to reconcile any discrepancies before final shipping or receipt.
   b.) All shipments should be verified immediately upon receipt of the material. Any discrepancies must be reported to the NextGen warehouse facility immediately, before any material is utilized. NextGen will have 24 hours after receiving a discrepancy notice to make arrangements for an independent verification, or to submit pertinent information.

   During this period the material must be segregated, not moved or utilized for erection, allowing NextGen the ability to respond.

   Material will not be subjected to rent during this period. At the end of this period, if NextGen does not independently verify the counts, the material may be used and the quantities reported by the client will be utilized in the inventory.
   c.) Upon receipt of the material at the NextGen warehouse facility, the scaffold material is again subjected to two (2) independent verification

All material must be inspected prior to use! See inspection guidelines on page 87.

counts, and if needed a third reconciling count. Any discrepancies between the counts and the quantity reflected on the client-prepared shipping ticket faxed to the NextGen warehouse facility will be reported to the client immediately. The client will have 24 hours after receiving a discrepancy notice to make arrangements for an independent verification. NextGen will segregate and hold the material awaiting the client's decision. After this period, if the client does not independently verify the counts, the material will be returned to stock and the NextGen counts will be utilized in the inventory.

d.) At the end of the project, all concerned parties will review the final inventory status, which is based on each shipping ticket (inbound and outbound). NextGen will invoice the client for any material shortages or damages which would be included as part of the final closeout invoice.

Always call NextGen in advance of shipping if you have any questions on the above guidelines.

The Deer Park, TX phone number is (832) 479-0779.

All material must be inspected prior to use! See inspection guidelines on page 87.

INSTANTLOCK 2 END-USER REPAIR GUIDELINES

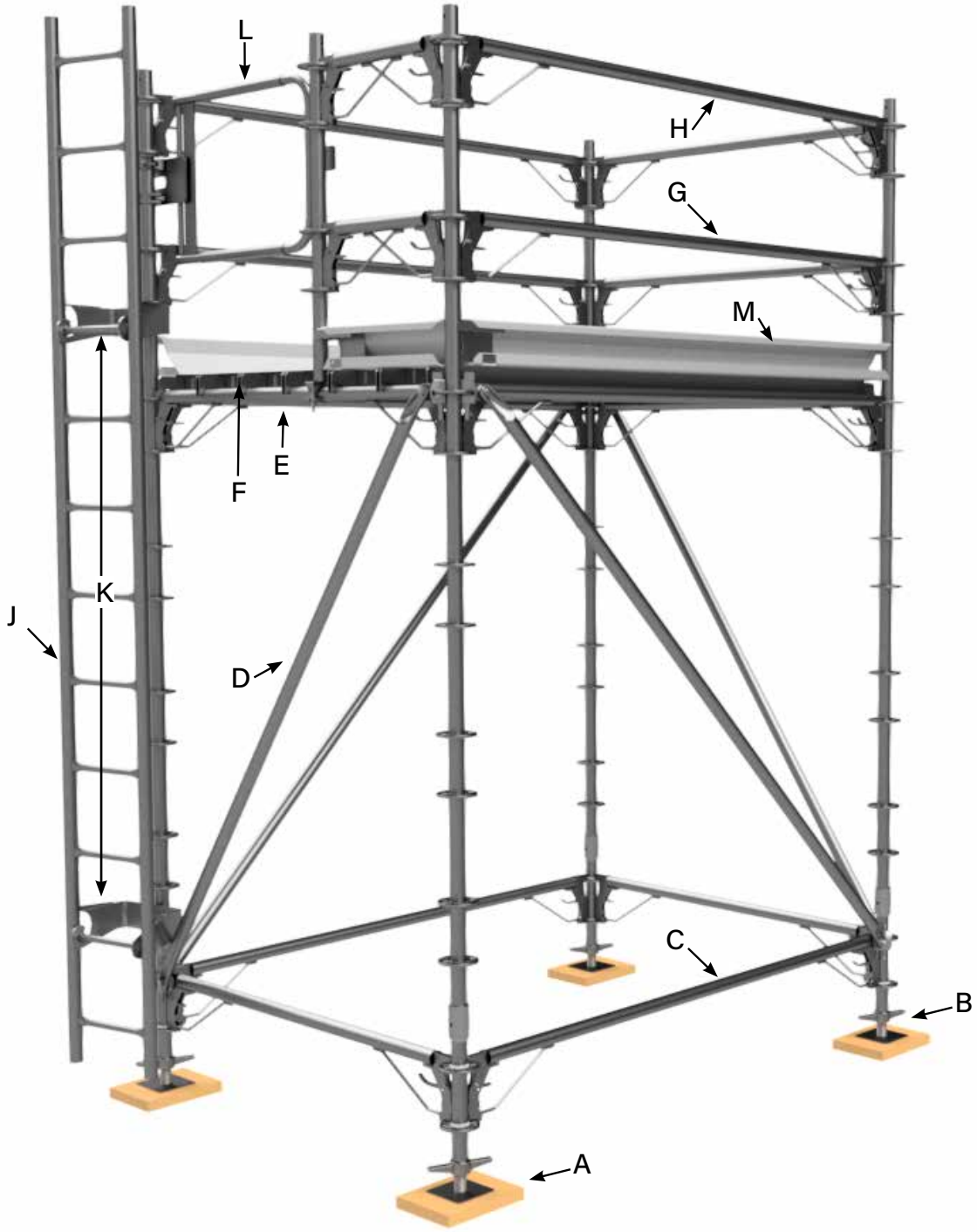
REPAIRS AND MAINTENANCE ACTIVITIES THAT ARE AUTHORIZED TO BE PERFORMED IN THE FIELD:

1. Replacement of vertical pins in vertical legs and side brackets.
   —Must order replacement vertical pins in advance from NextGen.
2. Replacement of snap buttons in vertical pins, stair stringers or other components.
   —Must order replacement snap buttons in advance from NextGen.
3. Replacement of coupling pin snap buttons in vertical legs and side brackets.
   —Must order replacement vertical pins in advance from NextGen.
4. Replacement of locking pins in diagonal braces components.
   —Must order replacement locking pins in advance from NextGen.
5. Minor bending/straightening of the ladder bracket.
   —Ladder brackets can become bent in or out so that they will not correctly fit the ladders. Ladder brackets may be bent straight if the bend required is less than ½ inch.

REPAIRS AND MAINTENANCE ACTIVITIES THAT ARE NOT AUTHORIZED TO BE PERFORMED IN THE FIELD:

1. ANY modification to InstantLock 2 System Scaffold.
2. Replacement of trigger assembly in InstantLock 2 components (i.e., trusses, horizontal bars, side brackets, etc.).
3. Replacement of spring assembly in InstantLock 2 components (i.e., trusses, horizontal bars, side brackets, etc.).
4. Replacement of nuts and bolts that hold springs and triggers in InstantLock 2 components.
5. Re-galvanizing InstantLock 2 components that have been corroded or sand blasted.
6. Straightening vertical leg assemblies that have been bent.
7. Shortening vertical leg assemblies by cutting.
8. Straightening horizontal bar assemblies that have been bent.
9. Shortening horizontal bar assemblies by cutting.
10. Any repairs to truss components.
11. Any repairs to metal deck board components.
12. Any repairs to stair stringer components. (With the exception of replacing the snap button in the tread lock down).
13. Any welding to any component.

All material must be inspected prior to use! See inspection guidelines on page 87.



A — Mudsill
B — Leveling Jack Maximum Extension, 12" Exposed Thread
C — Bottom Runner at Bottom Two (2) Rosettes
D — Diagonal Brace
E — Plank Bearer
F — Decking
G — Midrail at 2nd Set of Rosettes from Bearer
H — Handrail at 3rd Set of Rosettes from Bearer
J — Access Ladder
K — Ladder Brackets
L — Safety Gate
M — Toe Boards on Open Sides